

# NAILABLE ROOF INSULATION PRODUCTS CATALOG

GUIDE DETAILS FOR  
ATLAS NAILABLE INSULATIONS



[www.atlasroofing.com](http://www.atlasroofing.com)

# AVAILABLE ROOFING PRODUCTS CATALOG

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## TECHNICAL ASSURANCE

Atlas provides a full-service Technical Department with a LEED® Accredited Professional (AP), Registered Roof Consultant (RRC), Construction Documents Technologist (CDT), and a Certified Construction Product Representative (CCPR) on staff.



## *Introduction*

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From our start as a single asphalt shingle manufacturing company in 1982, to becoming a recognized leader and driving force in the green movement today, Atlas has done more than simply adapt to industry trends; we've led the way in setting standards.

Convinced that building "green" was not just a cliché or bandwagon to jump on, Atlas became a pioneer in the manufacturing of "Green Polyiso" insulation. Polyiso—a closed-cell, rigid foam board insulation—is used primarily on the roofs of commercial buildings where high thermal performance is essential. The term "Green Polyiso" refers to Environmentally-Friendly, polyisocyanurate insulation with Zero Ozone Depletion Potential (ODP), and Zero Global Warming Potential (GWP).

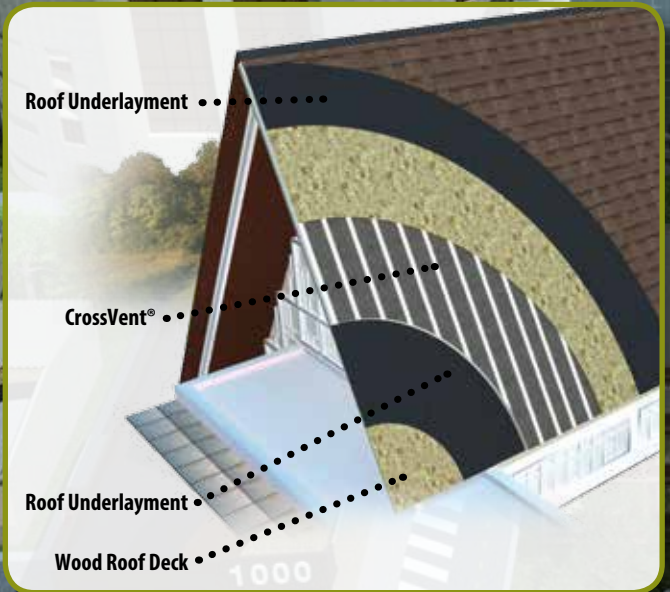
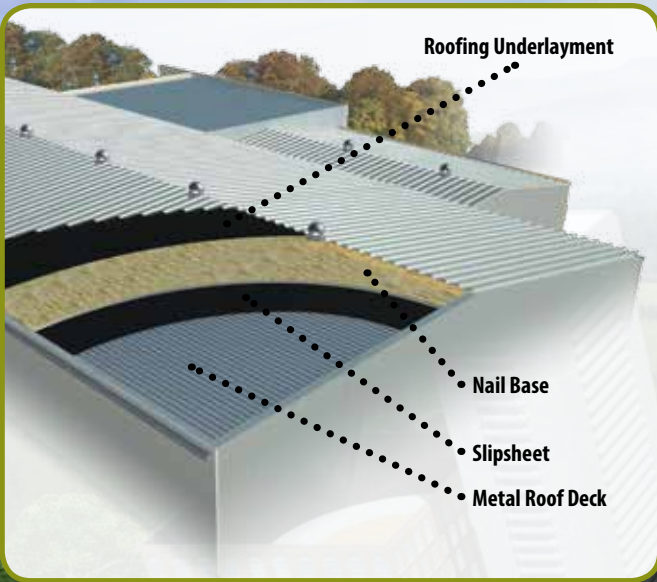
Through the development of our patented hydrocarbon blowing technology called ACUltra® Technology, Atlas became the first Polyiso manufacturer to cease the use of Chlorofluorocarbons (CFCs) in 1993 and Hydrofluorocarbons (HFCs) in 1998, years ahead of the Montreal Protocol deadline for compliance. Due to the material's contribution to energy efficiency throughout a building's life, LEED credits, and positive lifecycle assessment, Owners, Architects, Specifiers, and Contractors all recognize the important benefits of choosing Polyiso as their insulation board.



[www.greenzone.com](http://www.greenzone.com)

# ATLAS CITY

EXPERIENCE ATLAS CITY AT:  
[www.AtlasRoofing.com/AtlasCity](http://www.AtlasRoofing.com/AtlasCity)



## WELCOME TO ATLAS CITY

We have created this virtual city to illustrate the many uses of Atlas polyiso roofing products. There's an Atlas product that's perfect for every need from skyscrapers to single family homes and everything in between.

- ▼ POLYISO ROOF INSULATION APPLICATIONS
- ▼ NAILABLE ROOF INSULATION APPLICATIONS
- ▼ TAPERED ROOF INSULATION APPLICATIONS
- ▼ SPECIALTY PRODUCTS

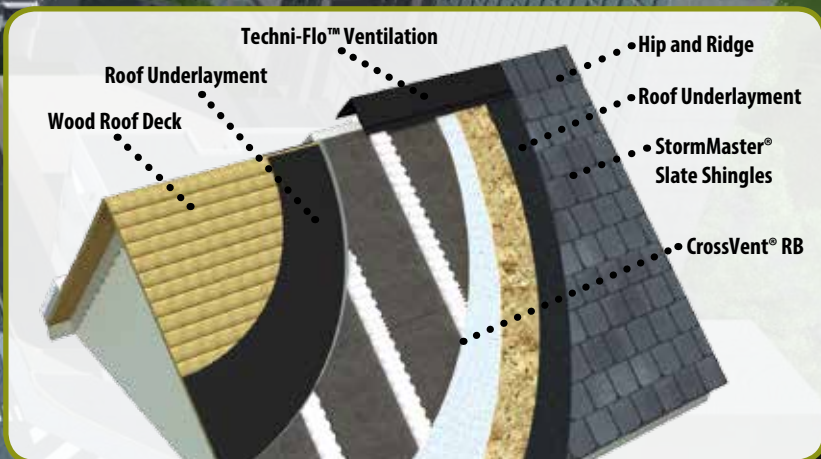
Atlas Nailable Roof Deck Insulation is well established in the building materials industry through its ACFoam® family of products. At the core of these products is polyisocyanurate (polyiso) foam, the most widely used and accepted rigid insulation in use today. It is estimated that 60-65% of all commercial new or re-roofing applications nationwide use polyiso. Rigid polyiso is a safe, cost-effective, sustainable and energy efficient construction material.

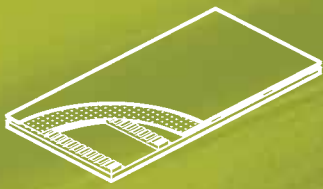
### Some of the benefits of polyiso insulation are:

- The highest Long Term Thermal R-value per inch of thickness
- The only roof insulation with third party thermal resistance certification
- Zero ozone depletion potential (ODP)
- Negligible global warming potential (GWP)
- Cost effective solution

Atlas Nailable Roof Insulations are used in a variety of different applications from Metal Roofs to Cathedral Ceilings. For lasting quality with superior performance, choose Atlas.

For downloadable details, fastening patterns, and product information, please visit [www.AtlasRoofing.com/Nailable](http://www.AtlasRoofing.com/Nailable).





## ARCHITECTURAL SPECIFICATIONS

### SHORT FORM SPECIFICATION FOR ACFoam® NAIL BASE INSULATION

#### 1.0 GENERAL

- 1.1 Summary
- A. Roof Insulation shall be ACFoam® Nail Base Insulation (NBI) as manufactured by Atlas Roofing Corporation, Atlanta, GA.
- 1.2 Delivery, Storage and Handling
- A. Keep ACFoam® NBI panels dry at all times and do not leave exposed or inadequately protected. Store indoors, if possible, on pallets or dunnage, elevated at least 3" above ground level.
- B. Replace wet insulation with dry product before applying roof coverings.
- C. Insulation shall be packaged with a plastic shroud or wrap provided to protect the material during shipment only.
- D. If stored outdoors, cover delivered packages with breathable tarpaulin.

#### 2.0 PRODUCTS

- 2.1 Materials
- A. ACFoam® NBI shall consist of a bottom layer of polyiso insulation board bonded to a top layer of 7/16 in. thick APA/TECO rated Oriented Strand Board (OSB). Only factory laminated panels shall be acceptable.
- B. ACFoam® NBI shall have an overall thickness of [ ] with an LTTR-Value of [ ]. Size of panel shall be 4' by 8'.
- C. The polyiso board shall be faced with a black glass-fiber reinforced organic felt.
- D. Atlas Nail Base Fasteners

#### 3.0 EXECUTION

- 3.1 Preparation
- A. Apply vapor retarder to wood, steel or structural concrete decking prior to the installation of ACFoam® NBI.  
\*\*\*\*NOTE TO SPECIFIER: ATLAS RECOMMENDS THAT THE DESIGNER CONSIDER CAREFULLY THE NEED FOR A VAPOR/AIR RETARDER.
- 3.2 Application
- A. Install ACFoam® NBI horizontally with the 8' edge running parallel to the ridge of the roof.
- B. With OSB side up, fasten ACFoam® NBI panels directly to the deck in accordance with manufacturer's requirements using Atlas Nail Base Fasteners.
- C. Cover the ACFoam® NBI panels with a minimum No. 15 roofing felt attached with corrosion resistant roofing nails.

### SHORT FORM SPECIFICATION FOR ACFoam® CROSSVENT® INSULATION

#### 1.0 GENERAL

- 1.1 Summary
- A. Roof insulation shall be CrossVent® as manufactured by Atlas Roofing Corporation, Atlanta, GA.
- 1.2 Delivery, Storage and Handling
- A. Keep insulation panels dry at all times and do not leave exposed or inadequately protected. Store indoors, if possible, on pallets or dunnage, elevated at least 3" above ground level.
- B. Replace wet insulation with dry product before any roof coverings are applied.
- C. Insulation shall be packaged with a plastic shroud or wrap provided to protect the material during shipment only.
- D. If stored outdoors, cover delivered packages with breathable tarpaulin.

#### 2.0 PRODUCTS

- 2.1 Materials
- A. CrossVent® shall consist of a bottom layer of polyiso insulation board and a top layer of 7/16 in. thick APA/TECO rated Oriented Strand Board (OSB) separated by [1.0"] [1.5"] [2.0"] thick vent spacing strips. Only factory laminated panels shall be acceptable.
- B. CrossVent® shall have an overall thickness of [ ] with an LTTR-Value of [ ]. Size of panel shall be 4' by 8'.
- C. The polyiso board shall be faced with a black glass-fiber reinforced organic felt.
- D. Atlas Nail Base Fasteners

#### 3.0 EXECUTION

- 3.1 Preparation
- A. Apply vapor retarder to wood, steel or structural concrete decking prior to the installation of CrossVent® panels.  
\*\*\*\*NOTE TO SPECIFIER: ATLAS RECOMMENDS THAT THE DESIGNER CONSIDER CAREFULLY THE NEED FOR A VAPOR/AIR RETARDER.
- 3.2 Application
- A. Install CrossVent® panels horizontally with staggered joints and the vent strips running up the slope of the roof.
- B. With the OSB side up, fasten panels directly through the venting strips in accordance with manufacturer's requirements using Atlas Nail Base Fasteners.
- C. Cover the insulation panels with a minimum No. 15 roofing felt attached with corrosion resistant roofing nails.
- D. Ridge and soffit vents shall be utilized to create an effective ventilating roof system in conjunction with the use of CrossVent®. Match net free ventilation area of the insulation panels, soffit vents, and ridge vents.

### SHORT FORM SPECIFICATION FOR ACFoam® CROSSVENT® RB INSULATION

#### 1.0 GENERAL

- 1.1 Summary
- A. Roof insulation shall be CrossVent® RB as manufactured by Atlas Roofing Corporation, Atlanta, GA.
- 1.2 Delivery, Storage and Handling
- A. Keep insulation panels dry at all times and do not leave exposed or inadequately protected. Store indoors, if possible, on pallets or dunnage, elevated at least 3" above ground level.
- B. Replace wet insulation with dry product before any roof coverings are applied.
- C. Insulation shall be packaged with a plastic shroud or wrap provided to protect the material during shipment only.
- D. If stored outdoors, cover delivered packages with breathable tarpaulin.

#### 2.0 PRODUCTS

- 2.1 Materials
- A. CrossVent® RB shall consist of a bottom layer of polyiso insulation board and a top layer of 7/16 in. thick APA/TECO rated radiant barrier Oriented Strand Board (OSB) separated by [1.0"] [1.5"] [2.0"] thick vent spacing strips. Only factory laminated panels shall be acceptable.
- B. CrossVent® RB shall have an overall thickness of [ ] with an LTTR-Value of [ ]. Size of panel shall be 4' by 8'.
- C. The polyiso board shall be faced with a black glass-fiber reinforced organic felt.
- D. Atlas Nail Base Fasteners

#### 3.0 EXECUTION

- 3.1 Preparation
- A. Apply vapor retarder to wood, steel or structural concrete decking prior to the installation of CrossVent® RB panels.  
\*\*\*\*NOTE TO SPECIFIER: ATLAS RECOMMENDS THAT THE DESIGNER CONSIDER CAREFULLY THE NEED FOR A VAPOR/AIR RETARDER.
- 3.2 Application
- A. Install CrossVent® RB panels horizontally with staggered joints and the vent strips running up the slope of the roof.
- B. With the OSB side up, fasten panels directly through the venting strips in accordance with manufacturer's requirements using Atlas Nail Base Fasteners.
- C. Cover the insulation panels with a minimum No. 15 roofing felt attached with corrosion resistant roofing nails.
- D. Ridge and soffit vents shall be utilized to create an effective ventilating roof system in conjunction with the use of CrossVent® RB. Match net free ventilation area of the insulation panels, soffit vents, and ridge vents.

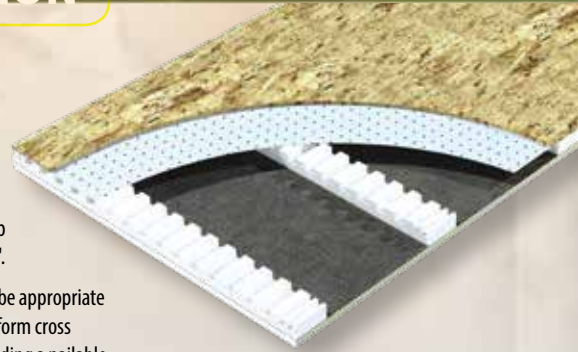
# R-1 • ACFOAM® CROSSVENT® RB INSULATION

## PRODUCT DESCRIPTION AND USES

**DESCRIPTION:** ACFoam® CrossVent® RB improves the thermal efficiency of standard CrossVent® by including a radiant barrier on the underside of the OSB nailing surface. CrossVent® RB consists of a polyiso insulation board with 1.0", 1.5" or 2.0" vent spacer strips. These strips separate 7/16" APA/TECO rated radiant barrier OSB from the polyiso foam insulation to create a cross-ventilating air space. The radiant barrier diminishes radiant heat transfer and reduces the temperature gradient across the polyiso board. The spacer strips allow air to flow through the air space, thereby helping to further dissipate heat build-up beneath the OSB. CrossVent® RB is made to order in 4' x 8' (1220mm x 2440mm) size panels and in nominal thickness of 2.5" to 6.5".

**USES:** ACFoam® CrossVent® Nailable Insulations have been designed for use over sloped unventilated roof decks. Slopes must be appropriate for the type of roof system specified. The primary purpose of CrossVent® is to provide a thermally efficient insulation with uniform cross venting that promotes air circulation required by many shingle manufacturers. CrossVent® allows heat to dissipate while providing a nailable surface and efficient insulation in a one-step labor saving process. In addition, CrossVent® RB significantly improves the thermal efficiency of standard CrossVent® by including a radiant barrier on the underside of the OSB nailing surface.

*Note: Atlas is not responsible for ventilation design. Designer should consider size of air space, ventilation capabilities of soffit and ridge vents, and length of run, among possible considerations.*



CrossVent® RB is covered by one or more claims of Patent # 5,433,050.

## TECHNICAL DATA

NOMINAL THICKNESS	in	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5
	mm	64	76	89	102	114	127	140	152	165
LTRR-VALUES <sup>2</sup>	With 1.0" Air Space	5.6	8.5	11.4	14.4	17.4	20.5	23.6	-	-
	RSI <sup>3</sup>	0.99	1.50	2.01	2.54	3.07	3.62	4.17	-	-
	With 1.5" Air Space	-	5.6	8.5	11.4	14.4	17.4	20.5	23.6	-
	RSI <sup>3</sup>	-	0.99	1.50	2.01	2.54	3.07	3.62	4.17	-
	With 2.0" Air Space	-	-	5.6	8.5	11.4	14.4	17.4	20.5	23.6
	RSI <sup>3</sup>	-	-	0.99	1.50	2.01	2.54	3.07	3.62	4.17
Pieces/Package		18	15	13	11	10	9	8	7	7
Square Feet		576	480	416	352	320	288	256	224	224

### TOTAL PACKAGES PER 45' TRUCKLOAD-22

LTRR (long term thermal resistance) values were determined in accordance with CAN/ULC-S770-09. Test samples were third-party selected and tested by an accredited material testing laboratory.

<sup>2</sup>Thermal resistance of unsealed air spaces does not apply. Only LTRR of ACFoam is reported.

<sup>3</sup>RSI is the metric expression of R-value (m<sup>2</sup> · K/W).

### NET FREE AREA OF VENTILATION PER LINEAR FOOT

AIRSPACE DIMENSIONS	NFA/LF
1.0" Airspace	9.0 sq. inch
1.5" Airspace	13.5 sq. inch
2.0" Airspace	18.0 sq. inch

The NFA is derived by multiplying the air space dimension in inches by the length in inches of the CrossVent® board (less the spacing strips) and then dividing by eight, the length in feet of each panel. The ventilating capabilities of the soffit and ridge vents should be matched to the Net Free Area of ventilation (NFA) of the CrossVent®.

## CODES AND COMPLIANCES

- Federal Specification HH-I-1972/GEN has been cancelled
- ASTM C 1289, Type V
- Miami-Dade County, Florida Product Control No. 08-0111.01 (with 19/32" plywood)
- State of Florida Product Approval #FL6796
- State of California, License #TC 1231
- IBC, NBC, UBC and SBC Sections on Plastic Foam Insulation (Chapter 26)
- FHA minimum property requirements
- ARMA insulated deck requirements
- APA/TECO rated OSB nailable surface

### FM Standard 4450/4470 Approval (1-105, 1-90, 1-60)

Approved for Class 1 insulated roof deck construction. Refer to FM Approvals Guide and RoofNav for system details.

### UL Standard 1256 Classification

Insulated metal deck construction assemblies - Construction #458, #120 and #123.

### UL Standard 790 Classification (ASTM E108)

For use with Class A, B or C shingles, metal or tile roof coverings.

### UL Standard 263 Fire Resistance Classification (ASTM E119)

Some classifications for fire resistance are P225, P230, P259, P508, P510, P514, P701, P717, P719, P723, P728, P732, P734, P739, P801, P815, and P819. See UL Fire Resistance Directory.

**CrossVent® RB is covered by one or more claims of Patent #5,433,050.**

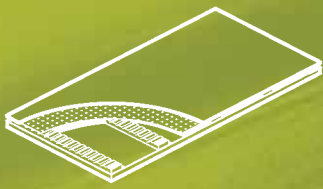
## TYPICAL PHYSICAL PROPERTIES (FOAM PORTION)

PROPERTY	TEST METHOD	TYPICAL RESULTS
Dimensional Stability (Length and Width)	ASTM D 2126	<2%
Comprehensive Strength (10% Deformation)	ASTM D 1621	20 psi (140 kPa) or 25 psi (172 kPa)
Water Absorption	ASTM C 209 / ASTM D 2842	<1%, <3.5%
Moisture Vapor Transmission	ASTM E 96	<1.0 perm (57.4 ng / (Pa·s·m <sup>2</sup> ))
Product Density	ASTM D 1622	Nominal 2.0 pcf (32.04 kg/m <sup>3</sup> )
Flame Spread	ASTM E 84 (Full 10 min.)	40-60*
Smoke Developed	ASTM E 84 (Full 10 min.)	50-170*
Tensile Strength	ASTM D 1623	>730 psf (35 kPa)
Service Temperature	-	-40 to 200° F**

\*The numerical ratings as determined by ASTM Test Method E 84 are not intended to reflect hazards presented by this or any other material under actual fire conditions. A flame spread index of 75 or less and smoke development of 450 or less meet code requirements regarding flame spread and smoke development for foam plastic roof insulation. However, the codes exempt foam plastic insulation when used in roof deck constructions that comply as an assembly with FM 4450 or UL 1256 (see IBC, NBC, UBC, and SBC Sections on Foam Plastic Insulation (Chapter 26). Smoke development does not apply to roofing.

\*\*ASTM C 1289 Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.

The physical properties listed above are presented as typical average values as determined by accepted ASTM test methods and are subject to normal manufacturing variation.



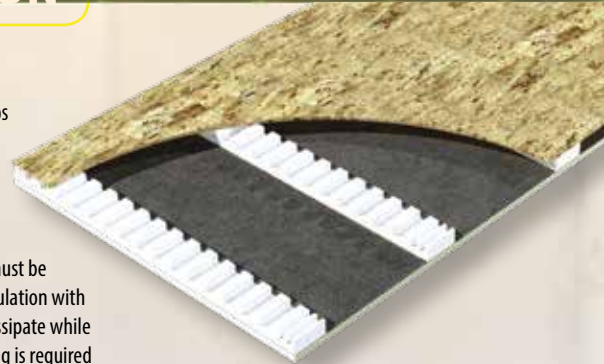
# R-2 • ACFOAM® CROSSVENT® INSULATION

## PRODUCT DESCRIPTION AND USES

**DESCRIPTION:** ACFoam® CrossVent® consists of a polyiso insulation board with 1.0", 1.5" or 2.0" vent spacer strips. These strips separate 7/16" APA/TECO rated OSB from the polyiso foam insulation to create a cross-ventilating air space. The spacer strips allow air to flow through the air space, thereby helping to dissipate heat build-up beneath the OSB. CrossVent® is made to order in 4' x 8' (1220mm x 2440mm) size panels and in nominal thicknesses of 2.5" to 6.5". Also available in other wood panel thickness including minimum 19/32" CDX plywood.

**USES:** ACFoam® CrossVent® Nailable Insulations have been designed for use over sloped unventilated roof decks. Slopes must be appropriate for the type of roof system specified. The primary purpose of CrossVent® is to provide a thermally efficient insulation with uniform cross venting that promotes air circulation required by many shingle manufacturers. CrossVent® allows heat to dissipate while providing a nailable surface and efficient insulation in a one-step labor saving process. Please note that additional fastening is required for plywood nailing surfaces. See Technical Update dated 05/05/06.

*Note: Atlas is not responsible for ventilation design. Designer should consider size of air space, ventilation capabilities of soffit and ridge vents, and length of run, among possible considerations.*



CrossVent® is covered by one or more claims of Patent # 5,433,050.

## TECHNICAL DATA

NOMINAL THICKNESS	in	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5
	mm	64	76	89	102	114	127	140	152	165
LTT-R-VALUES <sup>2</sup>	With 1.0" Air Space	5.6	8.5	11.4	14.4	17.4	20.5	23.6	-	-
	<sup>3</sup> RSI	0.99	1.50	2.01	2.54	3.07	3.62	4.17	-	-
	With 1.5" Air Space	-	5.6	8.5	11.4	14.4	17.4	20.5	23.6	-
	<sup>3</sup> RSI	-	0.99	1.50	2.01	2.54	3.07	3.62	4.17	-
	With 2.0" Air Space	-	-	5.6	8.5	11.4	14.4	17.4	20.5	23.6
	<sup>3</sup> RSI	-	-	0.99	1.50	2.01	2.54	3.07	3.62	4.17
Pieces/Package		18	15	13	11	10	9	8	7	7
Square Feet		576	480	416	352	320	288	256	224	224
<b>TOTAL PACKAGES PER 45' TRUCKLOAD-22</b>										
LTT-R (long term thermal resistance) values were determined in accordance with CAN/ULC-S770-09. Test samples were third-party selected and tested by an accredited material testing laboratory.										
<sup>2</sup> Thermal resistance of unsealed air spaces does not apply. Only LTT-R of ACFoam is reported.										
<sup>3</sup> RSI is the metric expression of R-value (m <sup>2</sup> · K/W).										

NET FREE AREA OF VENTILATION PER LINEAR FOOT	
AIRSPACE DIMENSIONS	NFA/LF
1.0" Airspace	9.0 sq. inch
1.5" Airspace	13.5 sq. inch
2.0" Airspace	18.0 sq. inch

The NFA is derived by multiplying the air space dimension in inches by the length in inches of the CrossVent® board (less the spacing strips) and then dividing by eight, the length in feet of each panel. The ventilating capabilities of the soffit and ridge vents should be matched to the Net Free Area of ventilation (NFA) of the CrossVent®.

## CODES AND COMPLIANCES

- Federal Specification HH-I-1972/GEN has been cancelled
- ASTM C 1289, Type V
- Miami-Dade County, Florida Product Control No. 08-0111.01 (with 19/32" plywood)
- State of Florida Product Approval #FL6796
- State of California, License #TC 1231
- IBC, NBC, UBC and SBC Sections on Plastic Foam Insulation (Chapter 26).
- FHA minimum property requirements
- ARMA insulated deck requirements
- APA/TECO rated OSB nailable surface

**FM Standard 4450/4470 Approval (1-105, 1-90, 1-60)**  
Approved for Class 1 insulated roof deck construction. Refer to FM Approval Guide and RoofNav for system details.

**UL Standard 1256 Classification**  
Insulated metal deck construction assemblies - Construction #458, #120 and #123.

**UL Standard 790 Classification (ASTM E108)**  
For use with Class A, B or C shingles, metal or tile roof coverings.

**UL Standard 263 Fire Resistance Classification (ASTM E119)**  
Some classifications for fire resistance are P225, P230, P259, P508, P510, P514, P701, P717, P719, P723, P728, P732, P734, P739, P801, P815, and P819. See UL Fire Resistance Directory.

**CrossVent® is covered by one or more claims of Patent #5,433,050.**

## TYPICAL PHYSICAL PROPERTIES (FOAM PORTION)

PROPERTY	TEST METHOD	TYPICAL RESULTS
Dimensional Stability (Length and Width)	ASTM D 2126	<2%
Comprehensive Strength (10% Deformation)	ASTM D 1621	20 psi (140 kPa) or 25 psi (172 kPa)
Water Absorption	ASTM C 209 / ASTM D 2842	<1%, <3.5%
Moisture Vapor Transmission	ASTM E 96	<1.0 perm (57.4 ng / (Pa·s·m <sup>2</sup> ))
Product Density	ASTM D 1622	Nominal 2.0 pcf (32.04 kg/m <sup>3</sup> )
Flame Spread	ASTM E 84 (Full 10 min.)	40-60*
Smoke Developed	ASTM E 84 (Full 10 min.)	50-170*
Tensile Strength	ASTM D 1623	>730 psf (35 kPa)
Service Temperature	-	-40 to 200° F**

\*The numerical ratings as determined by ASTM Test Method E 84 are not intended to reflect hazards presented by this or any other material under actual fire conditions. A flame spread index of 75 or less and smoke development of 450 or less meet code requirements regarding flame spread and smoke development for foam plastic roof insulation. However, the codes exempt foam plastic insulation when used in roof deck constructions that comply as an assembly with FM 4450 or UL 1256 (see IBC, NBC, UBC, and SBC Sections on Foam Plastic Insulation (Chapter 26). Smoke development does not apply to roofing.

\*\*ASTM C 1289 Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.

The physical properties listed above are presented as typical average values as determined by accepted ASTM test methods and are subject to normal manufacturing variation.





# R-3 • ACFOAM® NAIL BASE INSULATION

## PRODUCT DESCRIPTION AND USES

**DESCRIPTION:** ACFoam® Nail Base Insulation is a thermally efficient polyiso insulation board bonded to 7/16 in. APA/TECO rated OSB on the top side. ACFoam® Nail Base Insulation provides the desirable benefits of both a nailable surface and insulation, making installation an easy labor saving process. This product is made to order in 4' x 8' (1220mm x 2440mm) panels and in nominal thicknesses of 1.5" to 4.5". Also available in other wood panel thickness including minimum 19/32" CDX plywood. Please note that additional fastening is required for plywood nailing surfaces. See Technical Update dated 05/05/06.

**USES:** ACFoam® NBI is designed for installation over sloped solid decking having a minimum slope of 1/4" per foot. Metal roof coverings, tile or non-asphaltic shingles are applied to the OSB panel side of the product. The minimum slope shall be appropriate to the type of roof covering. The thermal efficiency of ACFoam® NBI makes it extremely effective for use over vaulted ceilings in log and conventional homes as well as churches, schools and auditoriums.



## NAIL BASE

## TECHNICAL DATA

NOMINAL THICKNESS	in	1.5	2.0	2.5	3.0	3.5	4.0	4.5
	mm	38	51	64	76	89	102	114
LTR-values <sup>2</sup>		6.2	9.1	12.0	15.0	18.0	21.0	24.2
RSI <sup>3</sup>		1.09	1.60	2.11	2.64	3.17	3.72	4.27
Pieces Per Package		31	23	18	15	13	11	10
Square Feet per Package		992	736	576	480	416	352	320

LTR (long term thermal resistance) values were determined in accordance with CAN/ULC-5770-09 Test samples were third-party selected and tested by an accredited material testing laboratory.

<sup>2</sup>The R-value of 0.55 for 7/16 OSB.

<sup>3</sup>RSI is the metric expression of R-value (m<sup>2</sup> · K/W).

## CODES AND COMPLIANCES

- Federal Specification HH-I 1972/GEN has been cancelled
- ASTM C 1289, Type V
- Miami-Dade County, Florida Product Control No. 08-0111.01 (with 19/32" plywood)
- State of Florida Product Approval #FL6796
- State of California, License #TC 1231
- IBC, NBC, UBC, and SBC Sections on Foam Insulation (Chapter 26)
- APA/TECO rated OSB nailing surface

### FM Standard 4450/4470 Approval (1-90, 1-105)

Approved for Class 1 insulated roof deck construction. Refer to FM Approval Guide and RoofNav for system details.

### UL Standard 1256 Classification

Insulated metal deck construction assemblies—Construction No. 120 and No. 123

### UL Standard 790 Classification (ASTM E 108)

For use with Class A, B or C shingles, metal or tile roof coverings.

### UL Standard 263 Fire Resistance Classification (ASTM E119)

Some classifications for fire resistance are P225, P230, P259, P508, P510, P514, P701, P717, P719, P723, P728, P732, P734, P739, P801, P815, and P819. See UL Fire Resistance Directory.

## TYPICAL PHYSICAL PROPERTIES (FOAM PORTION)

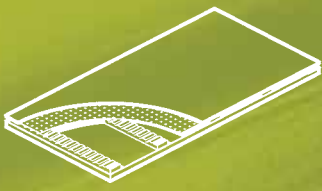
PROPERTY	TEST METHOD	TYPICAL RESULTS
Dimensional Stability (Length and Width)	ASTM D 2126	< 2%
Compressive Strength (10% Deformation)	ASTM D 1621	20 psi (140 kPa) or 25 psi (172 kPa)
Water Absorption	ASTM C 209, ASTM D 2842	< 1%, < 3.5%
Moisture Vapor Transmission	ASTM E 96	< 1.0 perm (57.4 ng/(Pa·s·m <sup>2</sup> ))
Product Density	ASTM D 1622	Nominal 2.0 pcf (32.04 kg/m <sup>3</sup> )
Flame Spread	ASTM E 84 (Full 10 min. Test)	40-60*
Smoke Developed	ASTM E 84 (Full 10 min. Test)	50-170*
Tensile Strength	ASTM D 1623	>730 psf (35 kPa)
Service Temperature	-	-40 to 200°F**

\*The numerical ratings as determined by ASTM Test Method E 84 are not intended to reflect hazards presented by this or any other material under actual fire conditions. A flame spread index of 75 or less and smoke development of 450 or less meet code requirements regarding flame spread and smoke development for foam plastic roof insulation. However, the codes exempt foam plastic insulation when used in roof deck constructions that comply as an assembly with FM 4450 or UL 1256 (see IBC, NBC, UBC, and SBC Sections on Foam Plastic Insulation (Chapter 26). Smoke development does not apply to roofing.

\*\*ASTM C 1289 Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.

The physical properties listed above are presented as typical average values as determined by accepted ASTM test methods and are subject to normal manufacturing variation.





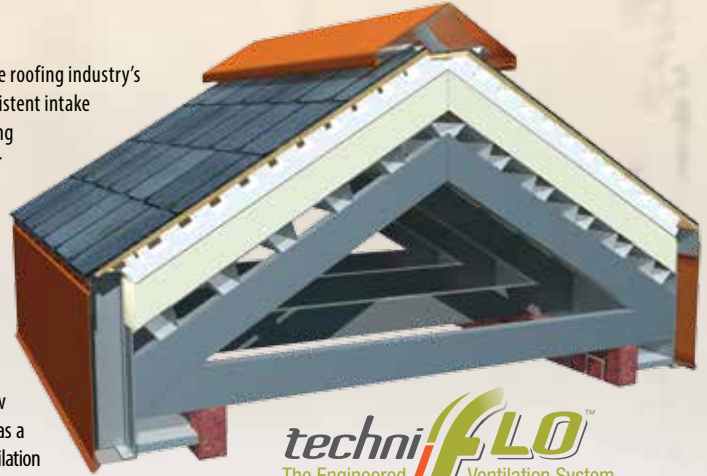
## R-4 • TECHNI-FLO™ ENGINEERED VENTILATION SYSTEM

### PRODUCT DESCRIPTION AND USES

**DESCRIPTION:** Meet the Techni-Flo™ Engineered Ventilation System. Manufactured to meet the roofing industry's ventilation needs in steep-slope roofs, this state-of-the-art system is engineered to ensure consistent intake and exhaust airflow underneath the roof covering of commercial roof applications. Proper venting throughout a steeped-sloped roofing system is essential for durability of the roof system and for control of temperatures above the air space. The Techni-Flo™ engineered ventilation system consists of 3 parts: The Techni-Flo™ EV (eave vent), ACFoam® CrossVent® (or CrossVent® RB), and the Techni-Flo™ RV (ridge vent).

### THE BENEFITS OF OPTIMAL AIRFLOW

In many cases, the airflow through ventilating nail base products is minimized because the eave and ridge vents do not match their ventilation capacity. Only Techni-Flo's engineered system ensures airflow through the ventilation space because the eave, ridge, and insulation venting capacity are designed as a system. The chart below gives a comprehensive look at what the Techni-Flo™ Engineered Roof Ventilation System offers over other ventilating nail base systems.



SYSTEM FEATURES	STANDARD VENTILATING NAIL BASE PRODUCT	TECHNI-FLO™ VENTILATION SYSTEM WITH CROSSVENT®
Airflow through the nailable roof insulation	●	
Contains products that meet FSC® Chain of Custody Certification requirements	●	
Pre-assembled products that allow for fast installation and low labor costs	●	
Products <b>CUSTOM</b> manufactured for individual projects		
Designed as a system for <b>CONSISTENT</b> intake and exhaust airflow underneath roof		
Designed to work as a system to ensure <b>MAXIMUM</b> airflow		
20 year limited warranty covering: ventilation, wind, thermal, and finish		

Generally roof ventilation systems contain products from several different manufacturers, and therefore compatibility and performance are hard to ensure. The benefits of those roof systems are hard to ascertain. Installing the Techni-Flo™ Engineered Roof System is the surest way to maximize roof ventilation, moderate roof cover temperatures, and promote durability.

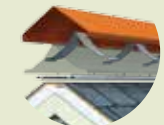
### COMPONENTS



Techni-Flo™ RV (ridge vent) accommodates both standing seam and shingled roof applications, and is engineered to individual job ventilation needs. Featuring a snap on cover for ease of installation, this all-metal ridge vent can withstand heavy snow-loads, will not compress under stress, and resists wind-driven rain and snow. It also features slotted fastening holes for thermal movement and correct fastener placement.



Techni-Flo™ EV (eave vent) is engineered for each job according to the project's specific ventilation needs, allowing airflow through the CrossVent® panel to the eave, evacuating heat and moisture, moderating temperatures of the roof covering, and ensuring a longer life for the roof. It also features slotted fastening holes for proper thermal movement and correct fastener placement.



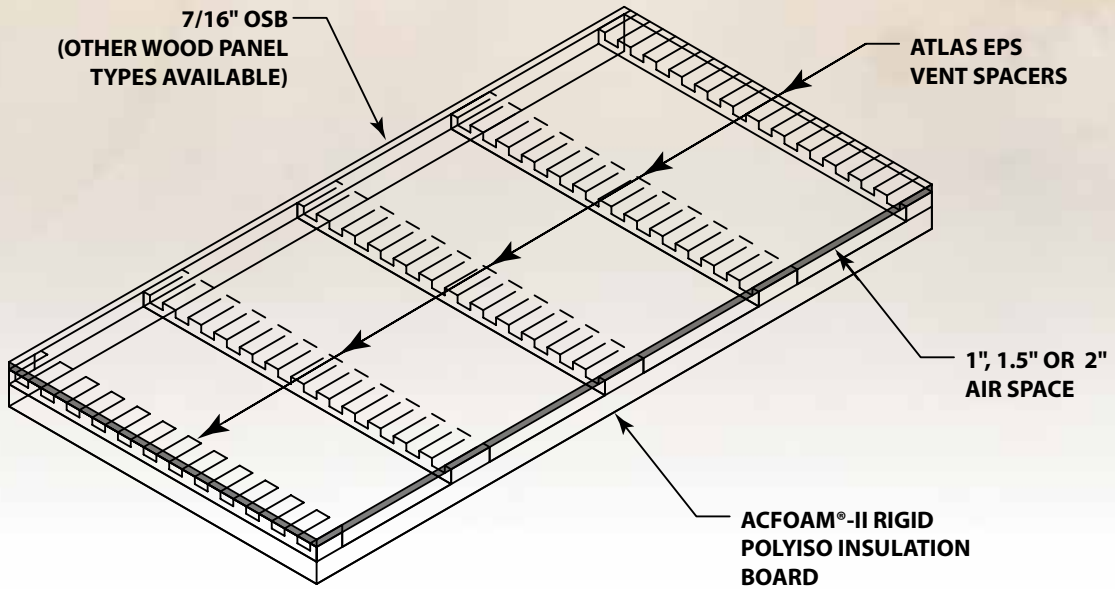
Techni-Flo™ EV is not intended for attachment to open ended metal truss or metal bar joist applications.

# One System. One Manufacturer.

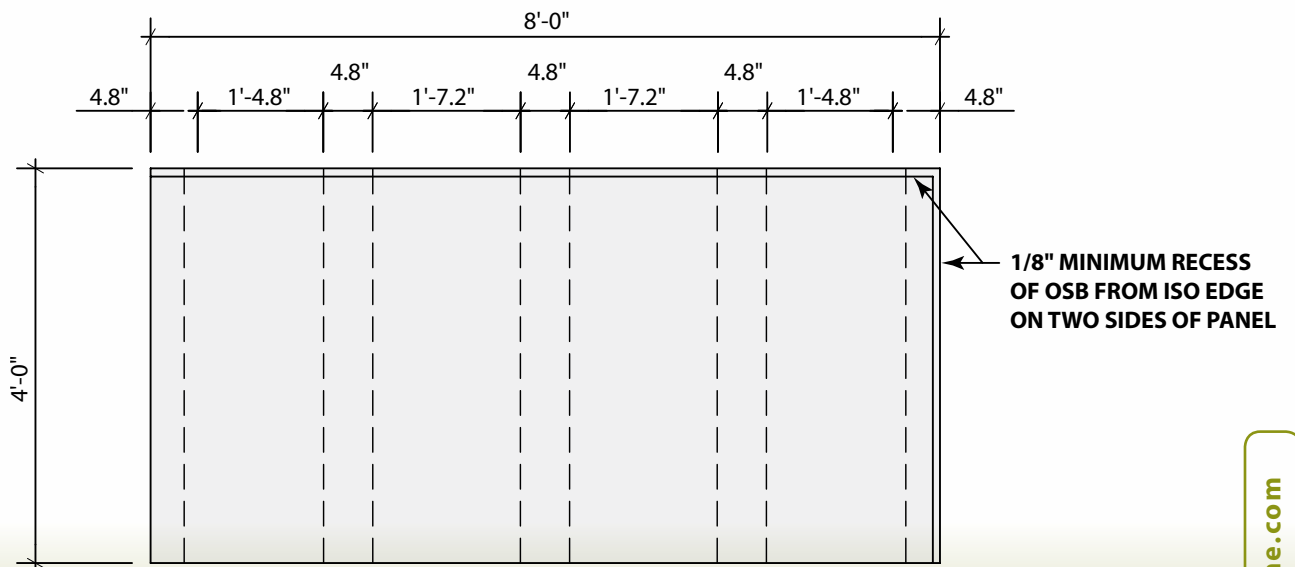
For Specifications, CAD Details, and Additional Product Information:

[www.AtlasRoofing.com/Ventilation](http://www.AtlasRoofing.com/Ventilation)

**CROSSVENT® / CROSSVENT® RB  
STANDARD BOARD DIMENSIONS**

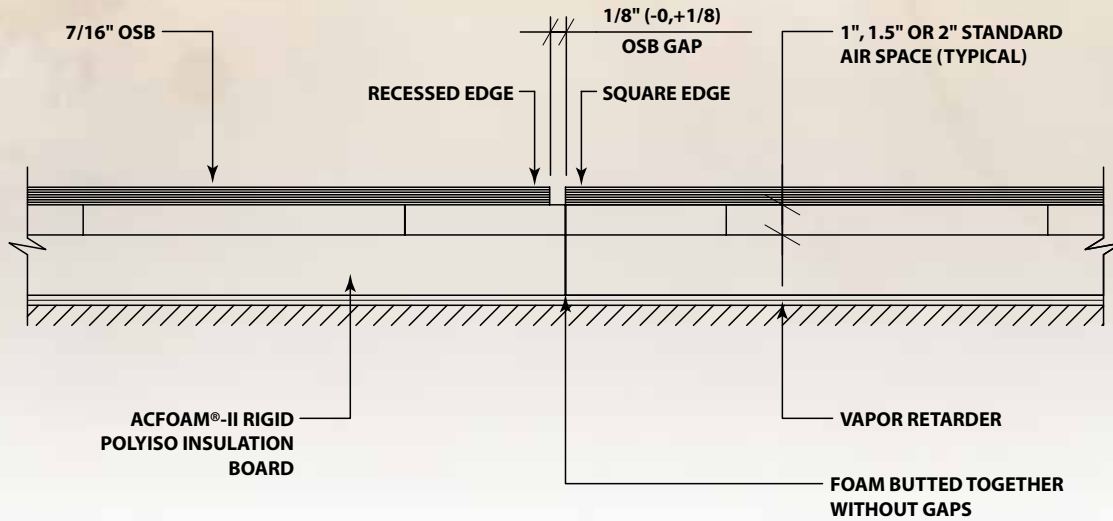


**ISOMETRIC VIEW**

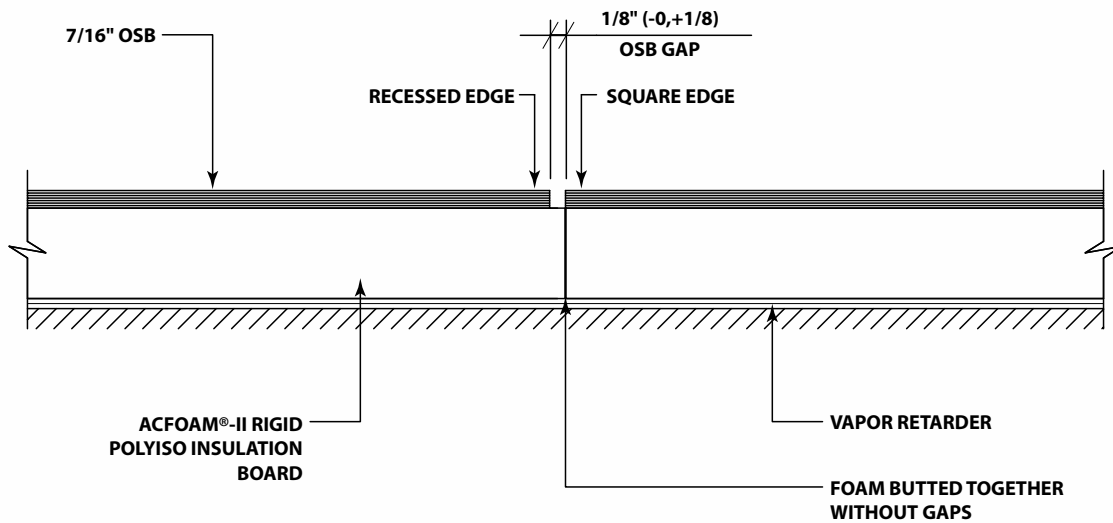


**PLAN VIEW**

**BUTT JOINT DETAIL**



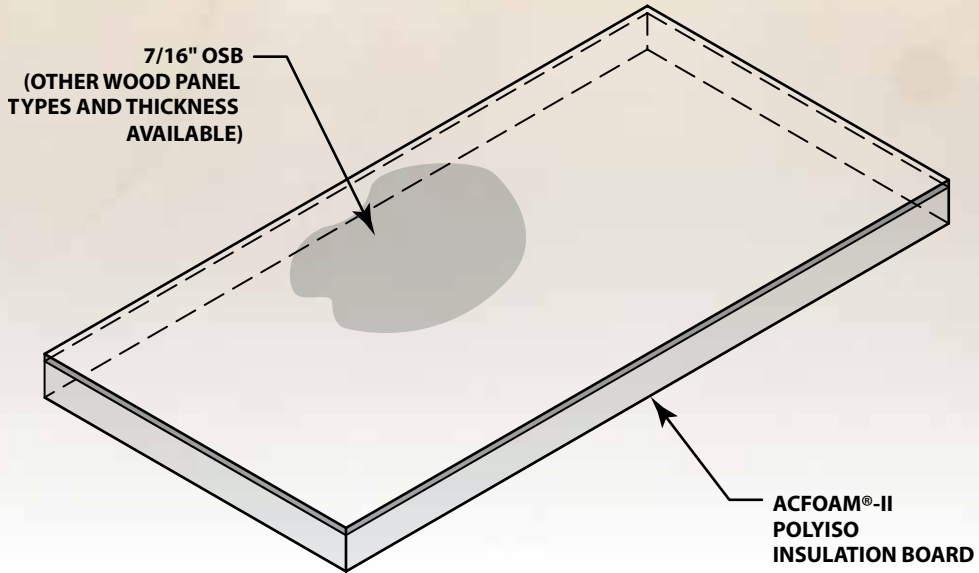
**CROSSVENT® / CROSSVENT® RB**  
SCALE: NTS



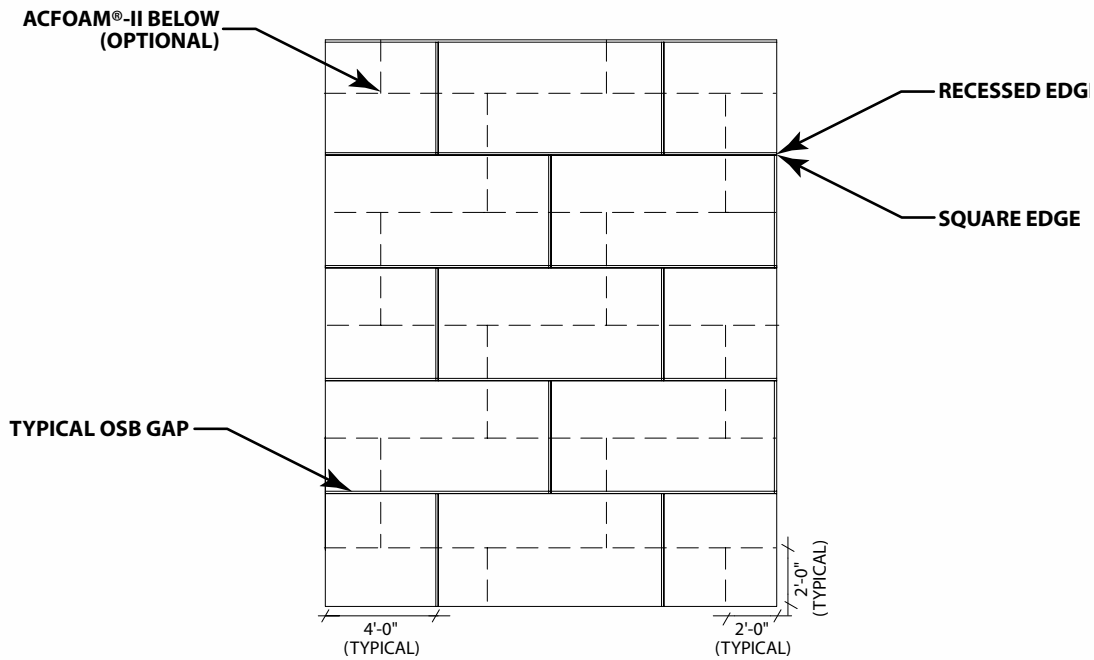
**NAIL BASE**  
SCALE: NTS

NOTE:  
NAIL BASE AND CROSSVENT® PRODUCTS SHALL BE INSTALLED IN THE POSITION SHOWN IN DETAIL A-1, PLAN VIEW (P.11)

### NAIL BASE INSULATION STANDARD BOARD DIMENSIONS AND INSTALLATION



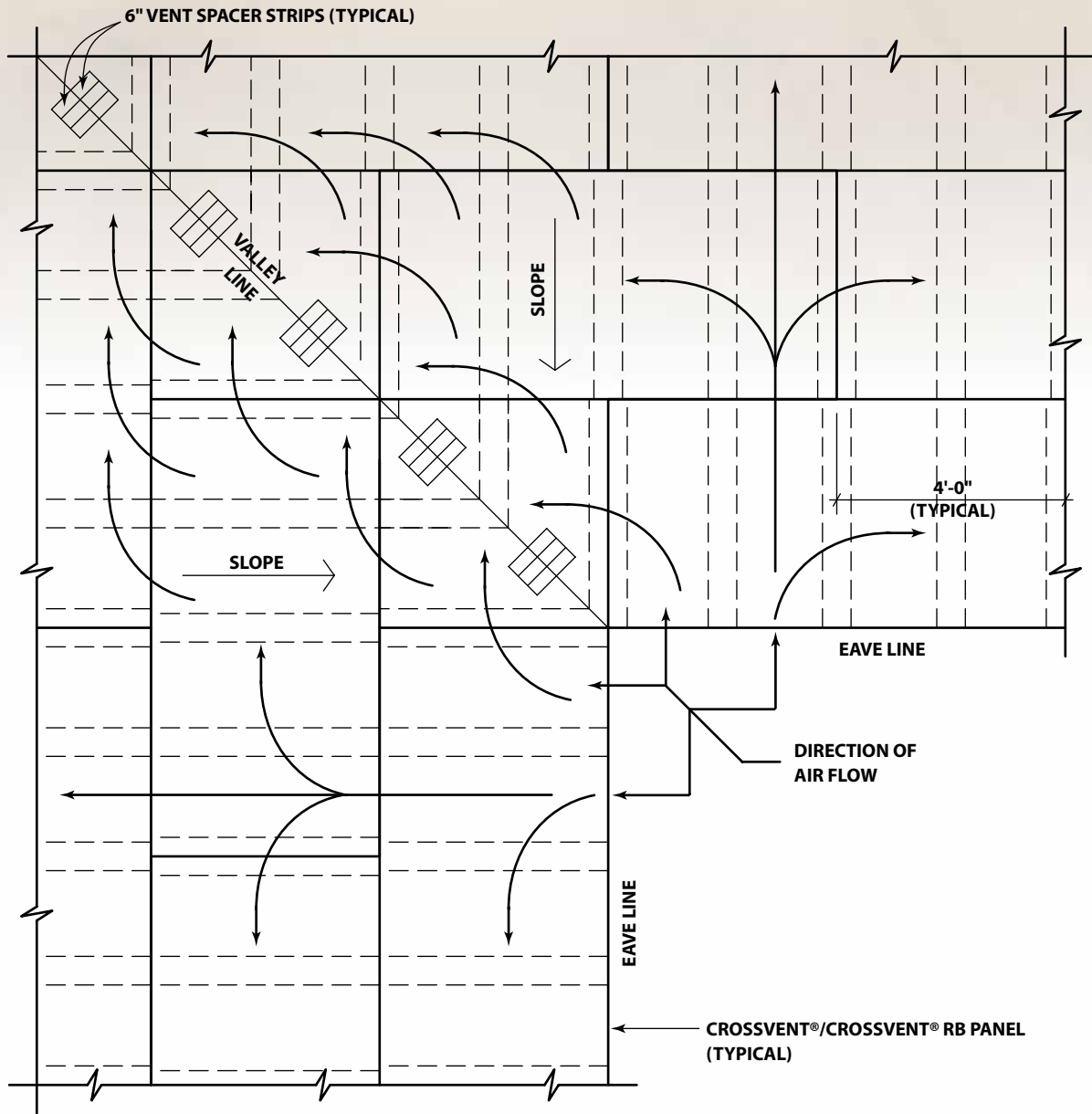
ISOMETRIC VIEW



4'-0" STAGGERED INSTALLATION PLAN VIEW

NOTE:  
VERIFY 1/8" EXPANSION GAP BETWEEN ADJACENT OSB PANELS.

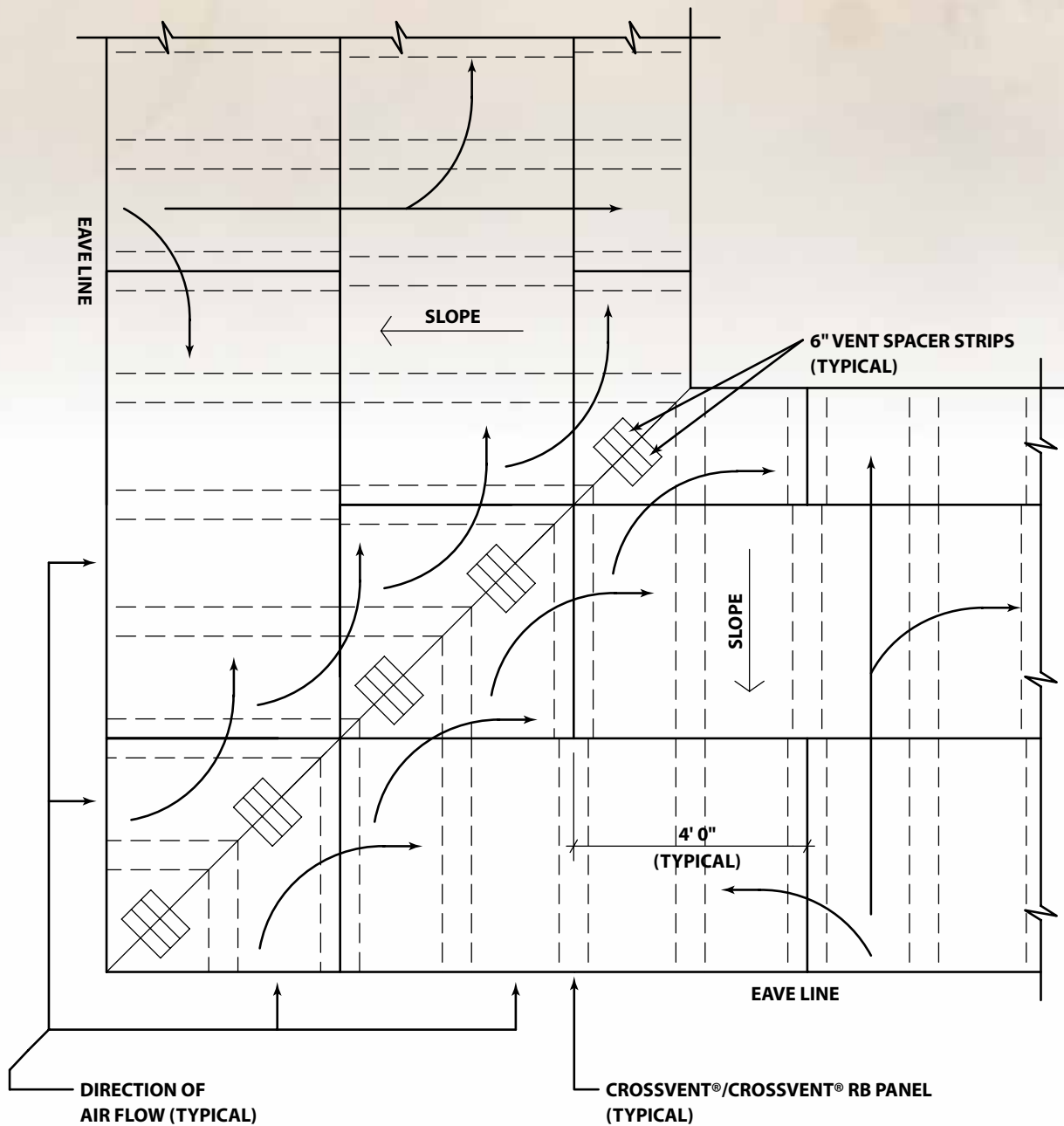
**CROSSVENT® / CROSSVENT® RB  
TYPICAL ROOF VALLEY INSTALLATION**



**NOTE:**

INSTALL 6" ATLAS VENT SPACER STRIPS ON BOTH SIDES OF VALLEY CENTER LINE AS SHOWN FOR OSB SUPPORT. FASTEN THROUGH EACH SPACER STRIP INTO STRUCTURAL DECK USING ATLAS NAIL BASE FASTENERS. CONTACT ATLAS SALES OFFICE FOR ADDITIONAL VENT SPACER STRIPS.

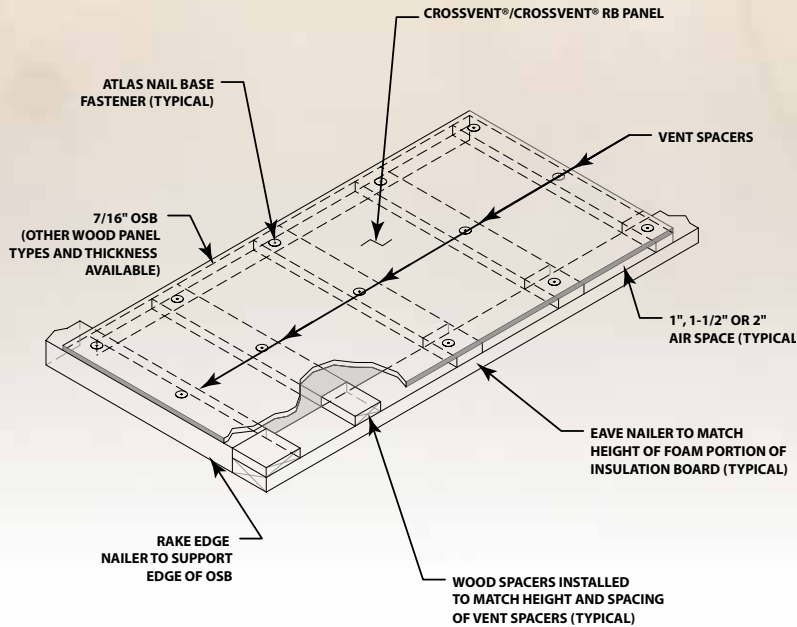
**CROSSVENT® / CROSSVENT® RB  
TYPICAL ROOF HIP INSTALLATION**



**NOTE:**

INSTALL 6" ATLAS VENT SPACER STRIPS ON BOTH SIDES OF VALLEY CENTER LINE AS SHOWN FOR OSB SUPPORT. FASTEN THROUGH EACH SPACER STRIP INTO STRUCTURAL DECK USING ATLAS NAIL BASE FASTENERS. CONTACT ATLAS SALES OFFICE FOR ADDITIONAL VENT SPACER STRIPS.

## CROSSVENT® / CROSSVENT® RB RAKE EDGE AND EAVE NAILER INSTALLATION

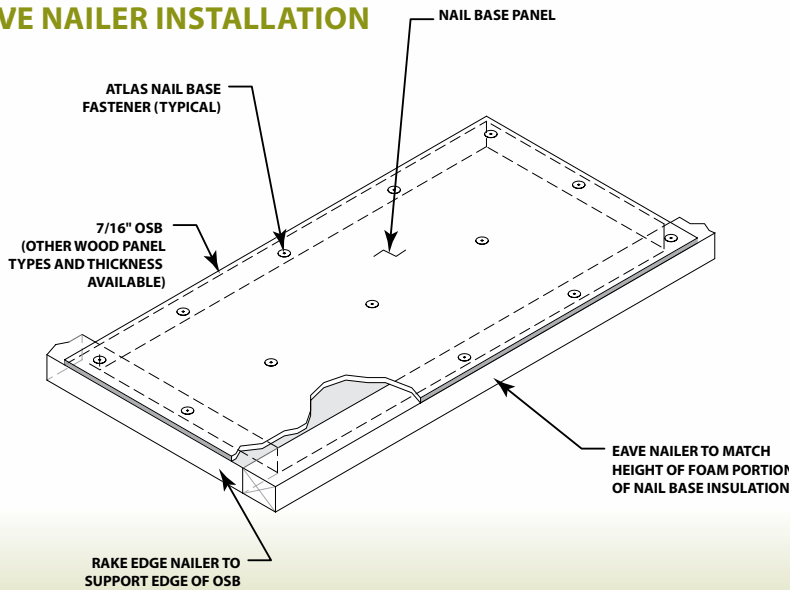


### ISOMETRIC VIEW

**NOTE:**

INSULATION SHALL BE TRIMMED BACK FROM RAKE EDGE AND EAVE TO ACCOMMODATE RAKE AND EAVE NAILERS. OSB SHALL BE SUPPORTED ON RAKE EDGE BY NAILER AND ON EAVE BY WOOD SPACERS TO ALLOW FOR AIR FLOW AT EAVE.

## NAIL BASE INSULATION RAKE EDGE AND EAVE NAILER INSTALLATION



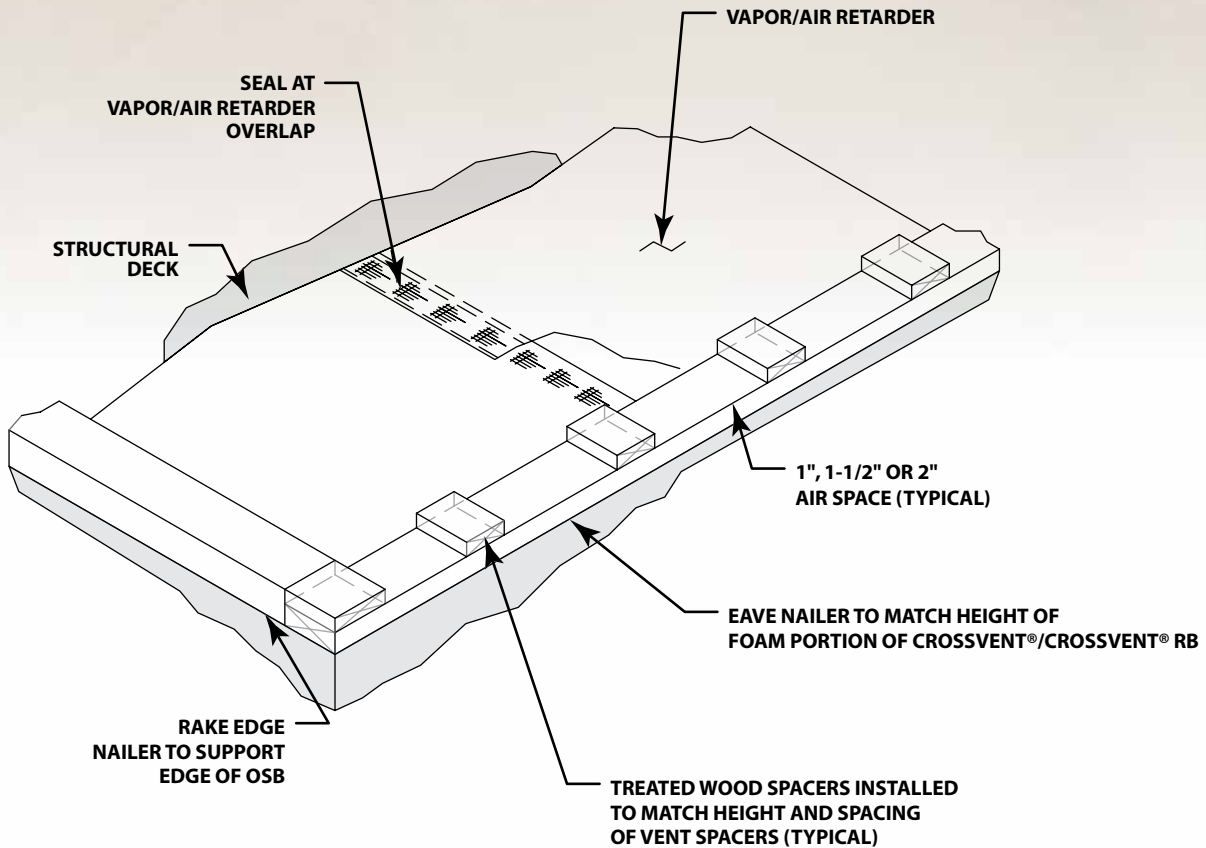
### ISOMETRIC VIEW

**NOTE:**

NAIL BASE INSULATION SHALL BE TRIMMED BACK FROM RAKE EDGE AND EAVE TO ACCOMMODATE RAKE AND EAVE NAILERS. OSB SHALL BE SUPPORTED ON RAKE EDGE AND EAVE BY WOOD NAILER.



## CROSSVENT® / CROSSVENT® RB VAPOR/AIR RETARDER INSTALLATION

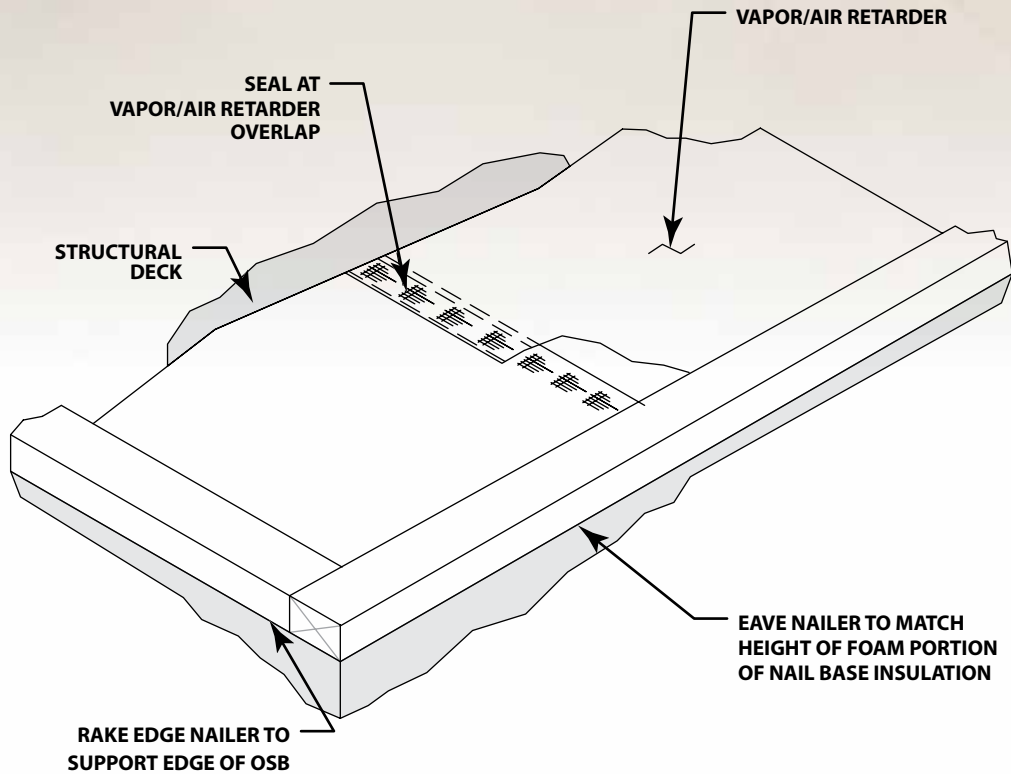


### ISOMETRIC VIEW

#### NOTES:

1. ATLAS RECOMMENDS THAT THE DESIGNER CONSIDER CAREFULLY THE NEED FOR A VAPOR/AIR RETARDER IN ORDER TO LIMIT MOISTURE/AIRFLOW INTO THE ROOF SYSTEM. DETERMINING THE NEED FOR AND LOCATION OF THE VAPOR/AIR RETARDER REMAINS SOLELY THE RESPONSIBILITY OF THE ARCHITECT, ENGINEER OR DESIGN PROFESSIONAL.
2. A SUITABLE VAPOR RETARDER SHALL HAVE A MINIMUM PERM RATING OF 0.5 OR LESS AS DETERMINED BY ASTM E 96.
3. FOLLOW VAPOR/AIR RETARDER MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR SEAMING AND PERIMETER EDGE TERMINATIONS.
4. A TWO-LAYER INSULATION APPLICATION SIGNIFICANTLY REDUCES MOISTURE/AIRFLOW INTO THE ROOF SYSTEM.

## NAIL BASE INSULATION VAPOR/AIR RETARDER INSTALLATION

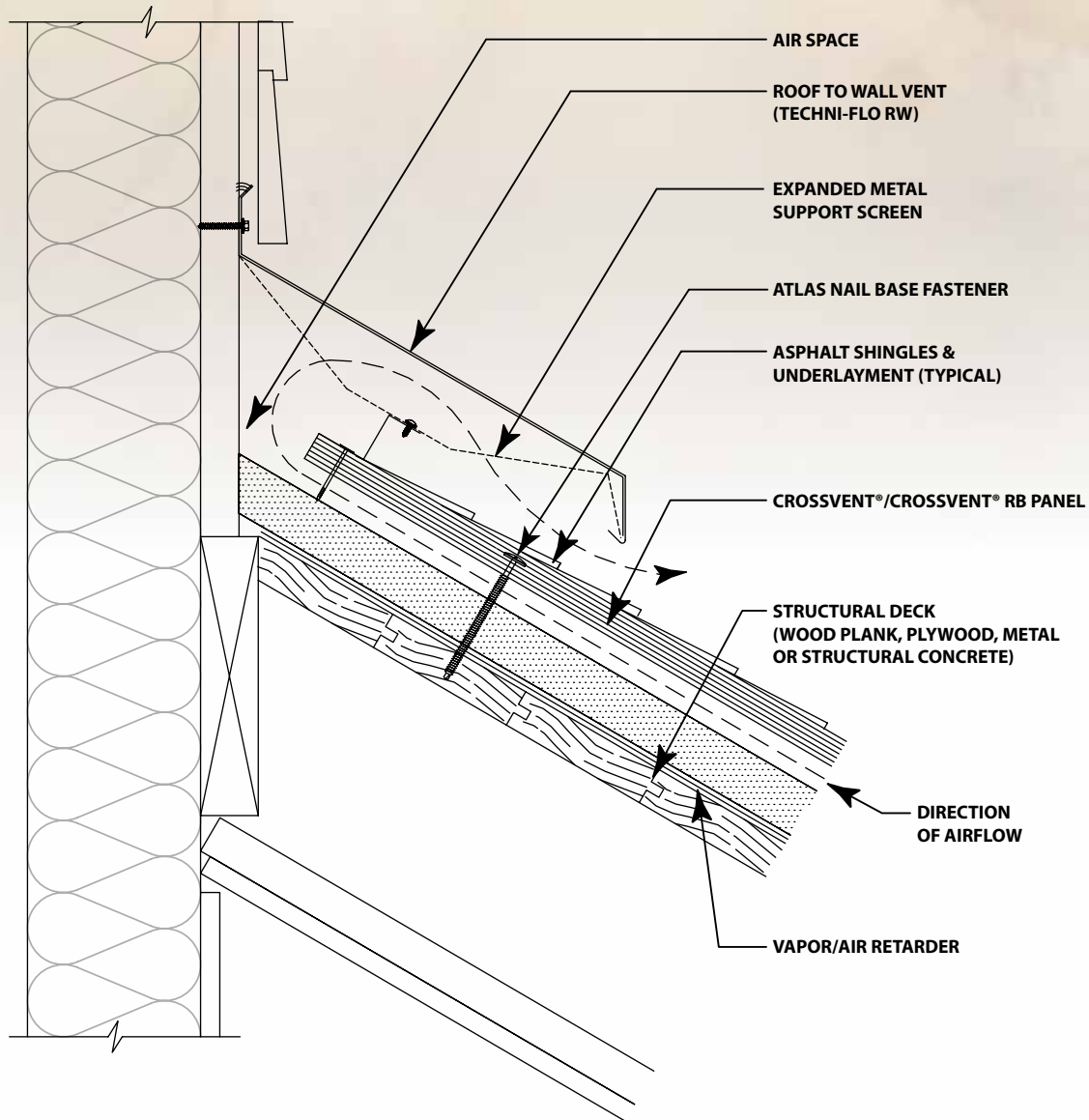


**ISOMETRIC VIEW**

**NOTES:**

1. ATLAS RECOMMENDS THAT THE DESIGNER CONSIDER CAREFULLY THE NEED FOR A VAPOR/AIR RETARDER IN ORDER TO LIMIT MOISTURE/AIR FLOW INTO THE ROOF SYSTEM. DETERMINING THE NEED FOR AND LOCATION OF THE VAPOR/AIR RETARDER REMAINS SOLELY THE RESPONSIBILITY OF THE ARCHITECT, ENGINEER OR DESIGN PROFESSIONAL.
2. A SUITABLE VAPOR RETARDER SHALL HAVE A MINIMUM PERM RATING OF 0.5 OR LESS AS DETERMINED BY ASTM E 96.
3. FOLLOW VAPOR/AIR RETARDER MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR SEAMING AND PERIMETER EDGE TERMINATIONS.
4. A TWO-LAYER INSULATION APPLICATION SIGNIFICANTLY REDUCES MOISTURE/AIRFLOW INTO THE ROOF SYSTEM.

## CROSSVENT® / CROSSVENT® RB ROOF/WALL VENT DETAIL

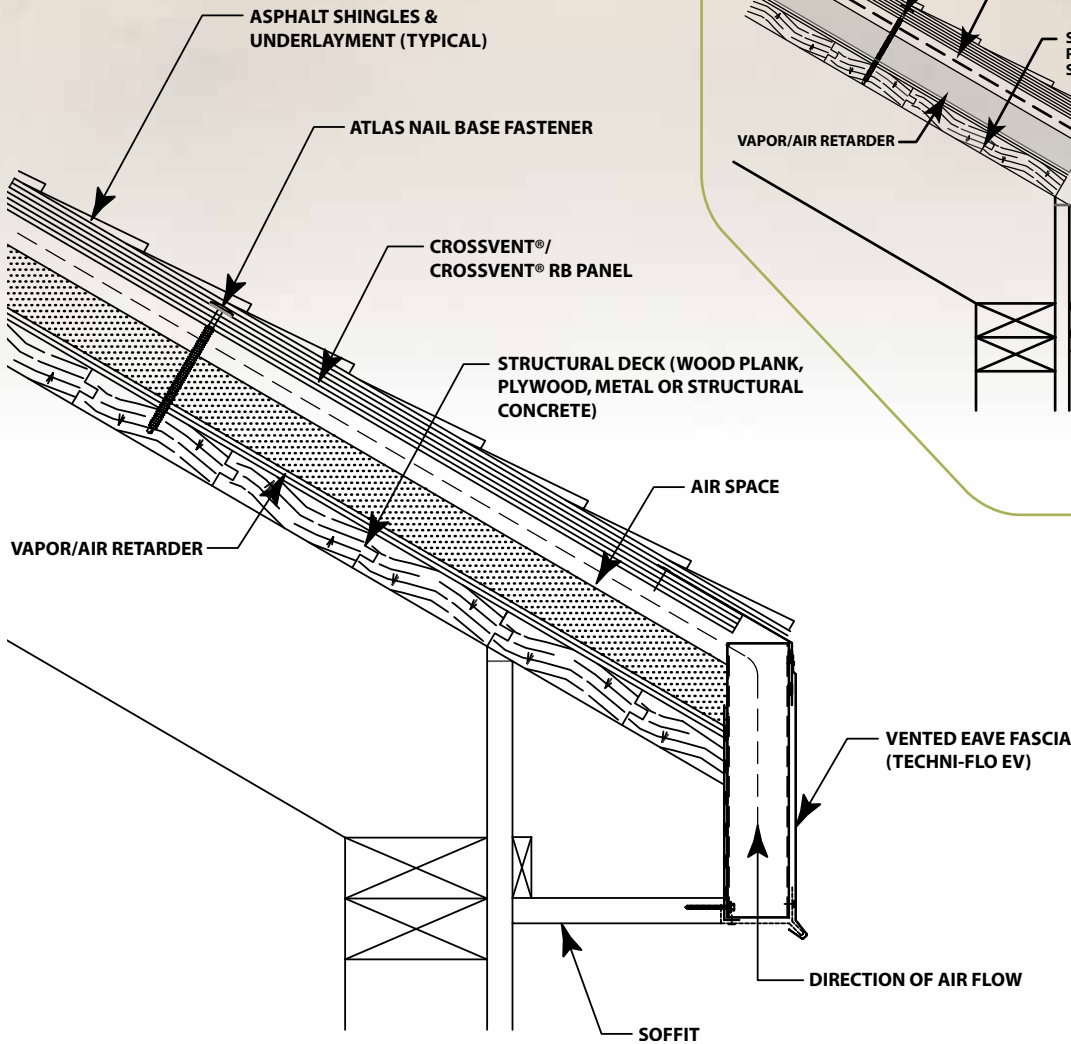


### NOTES:

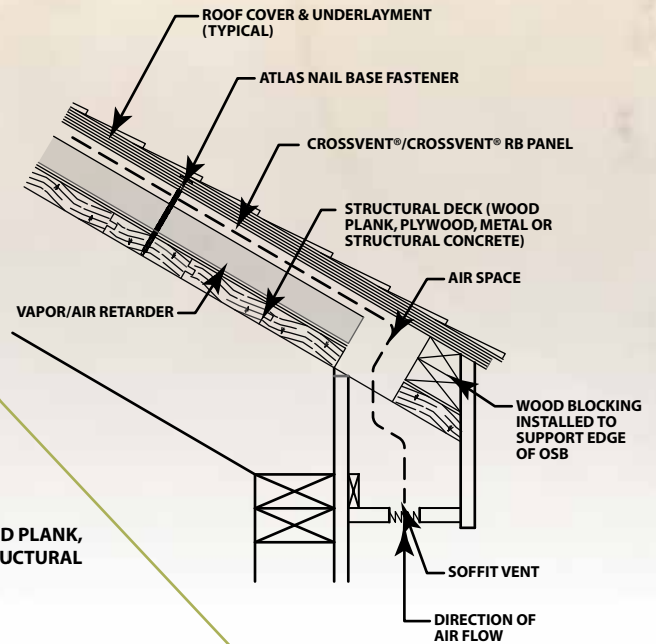
- REFER TO FASTENING REQUIREMENTS ON PAGE 27 FOR APPROVED DECK TYPES.
- FASTENER PENETRATION MINIMUMS:
 

WOOD PLANK:	1" PENETRATION INTO DECK
PLYWOOD:	1/2" THROUGH DECK
METAL:	3/4" THROUGH DECK (UPPER FLANGE ONLY)
STRUCTURAL CONCRETE (2500 PSI MIN.):	1" PENETRATION INTO DECK
- ATLAS RECOMMENDS THAT THE DESIGNER CONSIDER CAREFULLY THE NEED FOR A VAPOR/AIR RETARDER IN ORDER TO LIMIT MOISTURE/AIR FLOW INTO THE SYSTEM. DETERMINING THE NEED FOR AND LOCATION OF THE VAPOR/AIR RETARDER REMAINS SOLELY THE RESPONSIBILITY OF THE ARCHITECT, ENGINEER OR DESIGN PROFESSIONAL.
- FOR TILE, SLATE, OR OTHER HEAVY ROOF COVERING, THICKER OSB, SUCH AS 3/4", MAY BE REQUIRED. CONSULT ROOF COVERING MANUFACTURER OR RECOMMENDATIONS.
- TO CALCULATE THE APPROPRIATE ROOF TO WALL VENT OPENING: DIVIDE THE TOTAL EAVE (INTAKE) LINEAR FOOTAGE BY THE TOTAL ROOF TO WALL (EXHAUST) LINEAR FOOTAGE AND MULTIPLY THAT NUMBER BY THE AIR SPACE DIMENSION (ROUND DOWN TO THE NEAREST 1/4").

**CROSSVENT® / CROSSVENT® RB  
TYPICAL EAVE VENT DETAIL WITH  
SOFFIT (WOOD DECK)**



**ALTERNATE EAVE VENT DETAIL (BY OTHERS)**

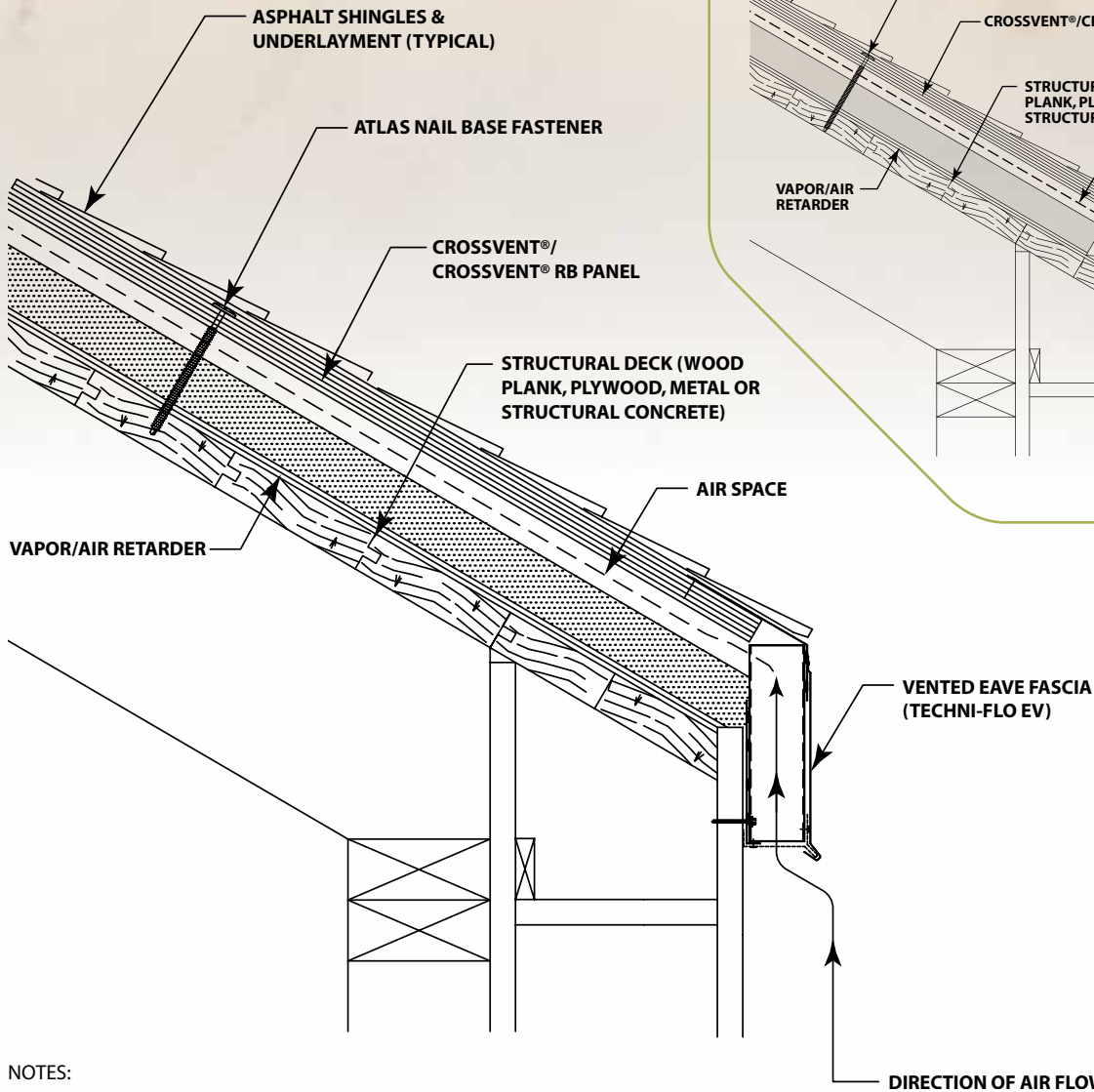


**NOTES:**

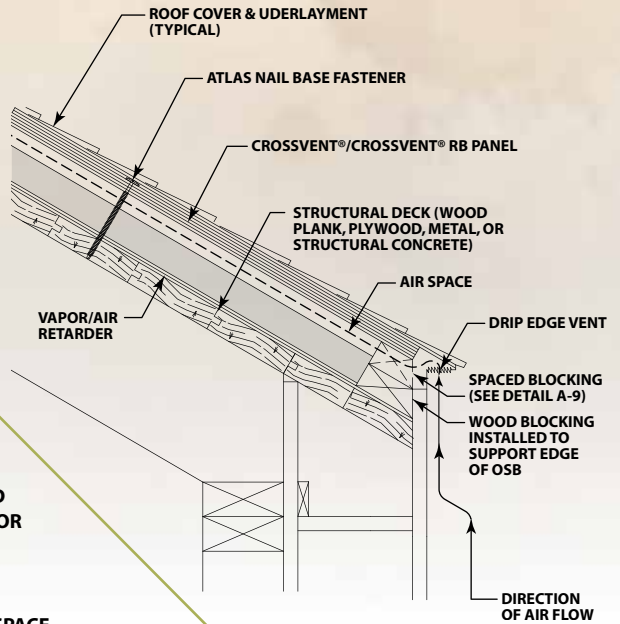
1. REFER TO FASTENING REQUIREMENTS ON PAGE 27 FOR APPROVED DECK TYPES.
2. FASTENER PENETRATION MINIMUMS:
 

WOOD PLANK:	1" PENETRATION INTO DECK
PLYWOOD:	1/2" THROUGH DECK
METAL:	3/4" THROUGH DECK (UPPER FLANGE ONLY)
STRUCTURAL CONCRETE (2500 PSI MIN.):	1" PENETRATION INTO DECK
3. ATLAS RECOMMENDS THAT THE DESIGNER CONSIDER CAREFULLY THE NEED FOR A VAPOR/AIR RETARDER IN ORDER TO LIMIT MOISTURE/AIR FLOW INTO THE SYSTEM. DETERMINING THE NEED FOR AND LOCATION OF THE VAPOR/AIR RETARDER REMAINS SOLELY THE RESPONSIBILITY OF THE ARCHITECT, ENGINEER OR DESIGN PROFESSIONAL.
4. FOR TILE, SLATE, OR OTHER HEAVY ROOF COVERING, THICKER OSB, SUCH AS 3/4", MAY BE REQUIRED. CONSULT ROOF COVERING MANUFACTURER OR RECOMMENDATIONS.
5. THE NET FREE AREA OF THE VENTED EAVE FASCIA SHOULD MEET OR EXCEED THE AIR SPACE DIMENSION OF CROSSVENT® / CROSSVENT® RB.
6. THE NET FREE AREA OF THE RIDGE VENT SHOULD MEET BUT NOT EXCEED THE NET FREE AREA OF THE AIR SPACE IN CROSSVENT® / CROSSVENT® RB.

**CROSSVENT® / CROSSVENT® RB  
DRIP EDGE VENT DETAIL  
WITHOUT SOFFIT (WOOD DECK)**



**ALTERNATE DRIP EDGE VENT DETAIL (BY OTHERS)**

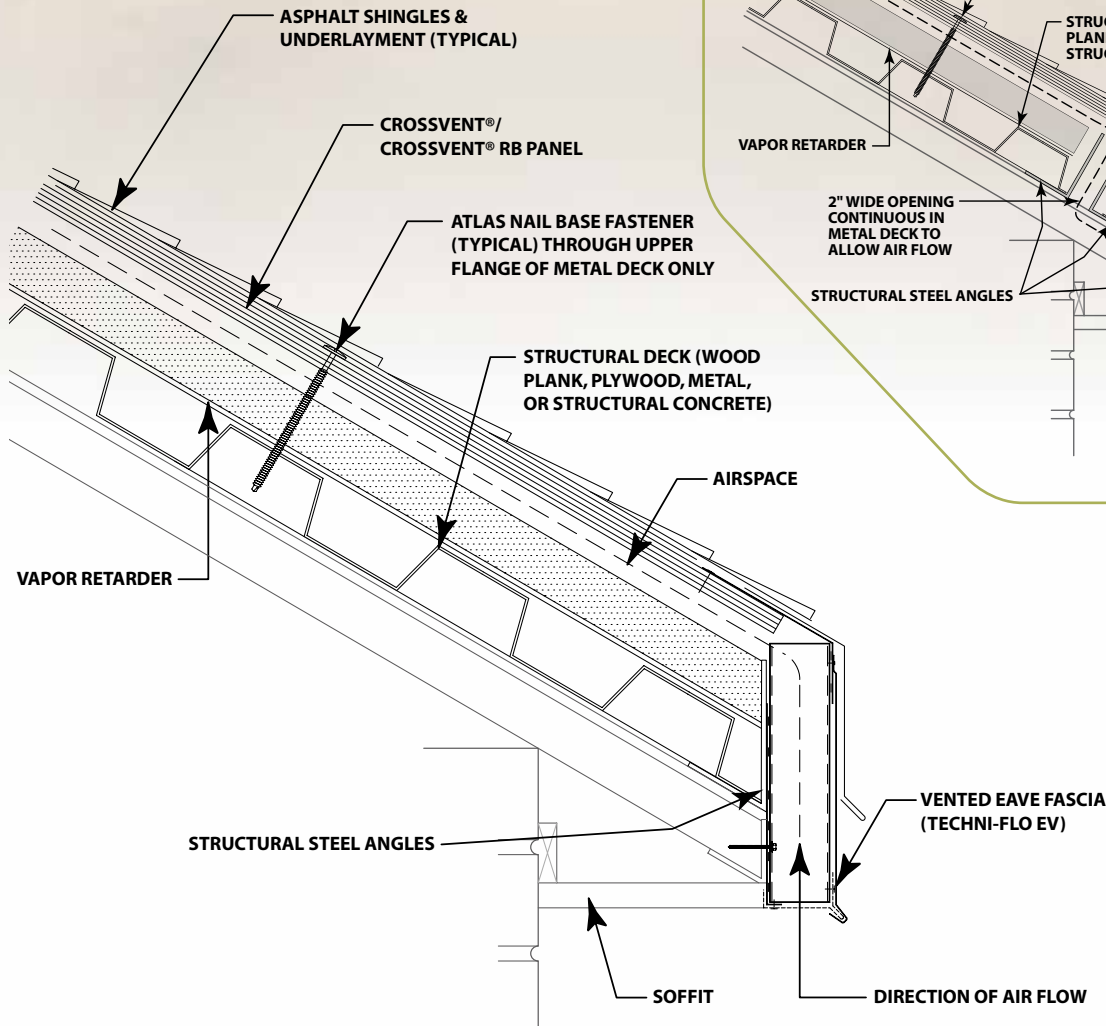


**NOTES:**

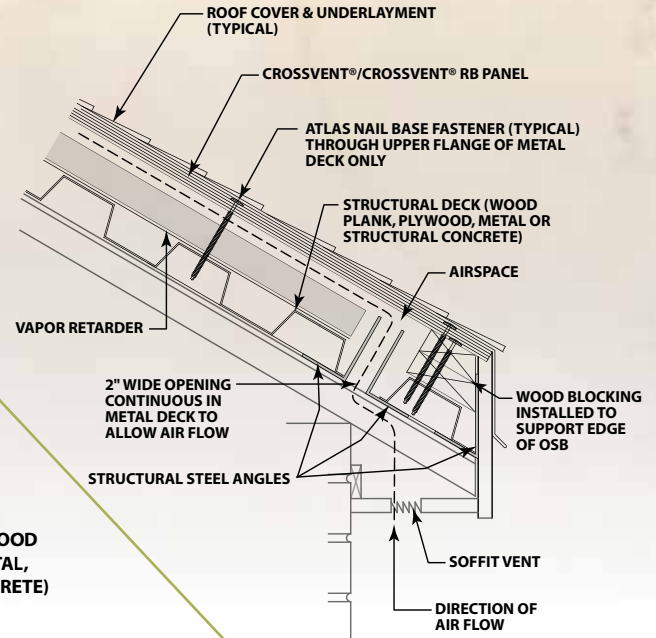
1. REFER TO FASTENING REQUIREMENTS ON PAGE 27 FOR APPROVED DECK TYPES.
2. FASTENER PENETRATION MINIMUMS:
 

WOOD PLANK:	1" PENETRATION INTO DECK
PLYWOOD:	1/2" THROUGH DECK
METAL:	3/4" THROUGH DECK (UPPER FLANGE ONLY)
STRUCTURAL CONCRETE (2500 PSI MIN.):	1" PENETRATION INTO DECK
3. ATLAS RECOMMENDS THAT THE DESIGNER CONSIDER CAREFULLY THE NEED FOR A VAPOR/AIR RETARDER IN ORDER TO LIMIT MOISTURE/AIR FLOW INTO THE SYSTEM. DETERMINING THE NEED FOR AND LOCATION OF THE VAPOR/AIR RETARDER REMAINS SOLELY THE RESPONSIBILITY OF THE ARCHITECT, ENGINEER OR DESIGN PROFESSIONAL.
4. FOR TILE, SLATE, OR OTHER HEAVY ROOF COVERING, THICKER OSB, SUCH AS 3/4", MAY BE REQUIRED. CONSULT ROOF COVERING MANUFACTURER OR RECOMMENDATIONS.
5. THE NET FREE AREA OF THE VENTED EAVE FASCIA SHOULD MEET OR EXCEED THE AIR SPACE DIMENSION OF CROSSVENT® / CROSSVENT® RB.
6. THE NET FREE AREA OF THE RIDGE VENT SHOULD MEET BUT NOT EXCEED THE NET FREE AREA OF THE AIR SPACE IN CROSSVENT® / CROSSVENT® RB.
7. THE DRIP EDGE VENT SHOWN IN INSET MATCHES THE VENTILATION CAPACITY OF A 1" AIR SPACE DIMENSION IN CROSSVENT® / CROSSVENT® RB.

**CROSSVENT® / CROSSVENT® RB  
TYPICAL EAVE VENT DETAIL WITH  
SOFFIT (METAL DECK)**



**ALTERNATE EAVE VENT DETAIL (BY OTHERS)**

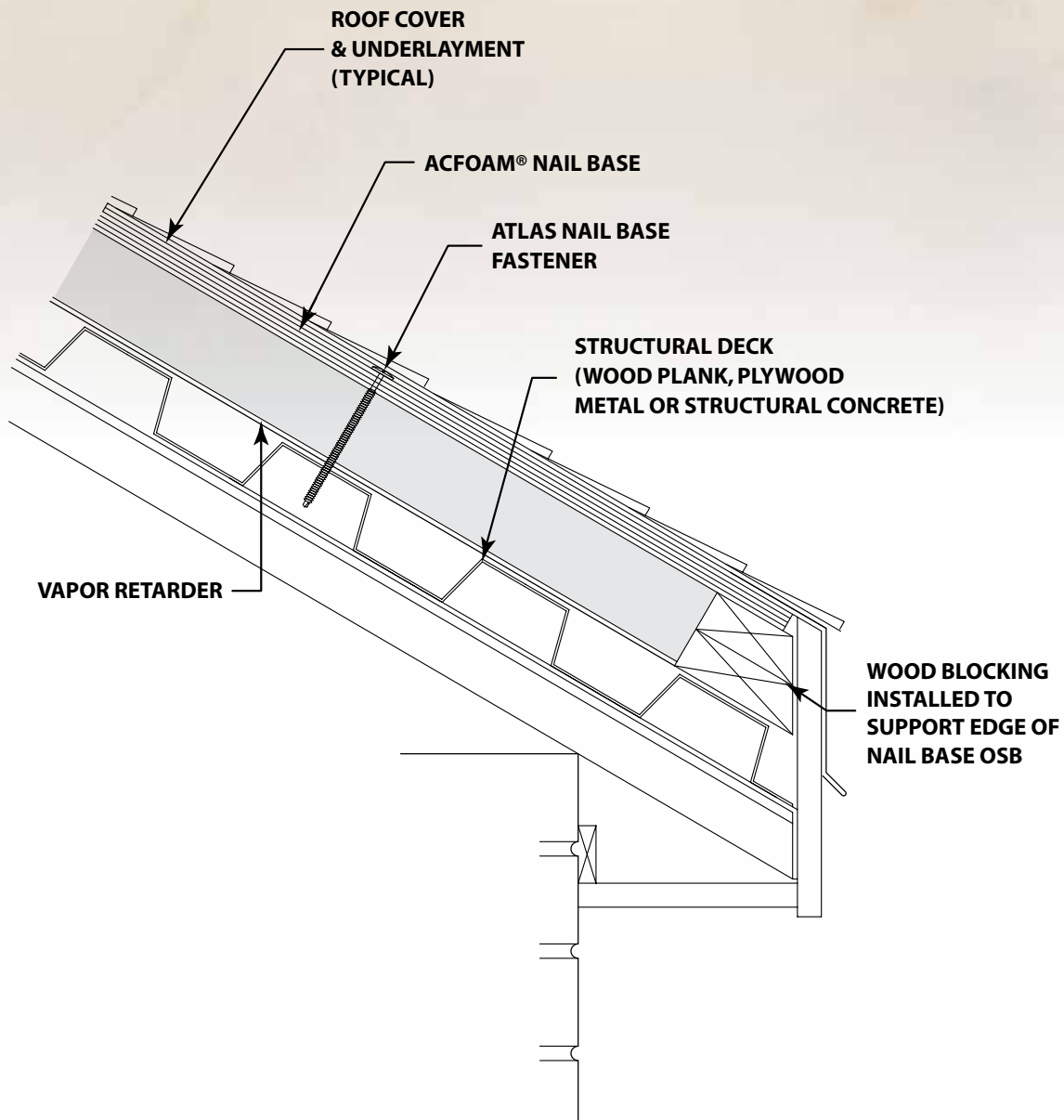


**NOTES:**

1. REFER TO FASTENING REQUIREMENTS ON PAGE 27 FOR APPROVED DECK TYPES.
2. FASTENER PENETRATION MINIMUMS:
 

WOOD PLANK:	1" PENETRATION INTO DECK
PLYWOOD:	1/2" THROUGH DECK
METAL:	3/4" THROUGH DECK (UPPER FLANGE ONLY)
STRUCTURAL CONCRETE (2500 PSI MIN.):	1" PENETRATION INTO DECK
3. ATLAS RECOMMENDS THAT THE DESIGNER CONSIDER CAREFULLY THE NEED FOR A VAPOR/AIR RETARDER IN ORDER TO LIMIT MOISTURE/AIR FLOW INTO THE SYSTEM. DETERMINING THE NEED FOR AND LOCATION OF THE VAPOR/AIR RETARDER REMAINS SOLELY THE RESPONSIBILITY OF THE ARCHITECT, ENGINEER OR DESIGN PROFESSIONAL.
4. FOR TILE, SLATE, OR OTHER HEAVY ROOF COVERING, THICKER OSB, SUCH AS 3/4", MAY BE REQUIRED. CONSULT ROOF COVERING MANUFACTURER OR RECOMMENDATIONS.
5. THE NET FREE AREA OF THE VENTED EAVE FASCIA SHOULD MEET OR EXCEED THE AIR SPACE DIMENSION OF CROSSVENT® / CROSSVENT® RB.
6. THE NET FREE AREA OF THE RIDGE VENT SHOULD MEET BUT NOT EXCEED THE NET FREE AREA OF THE AIR SPACE IN CROSSVENT® / CROSSVENT® RB.

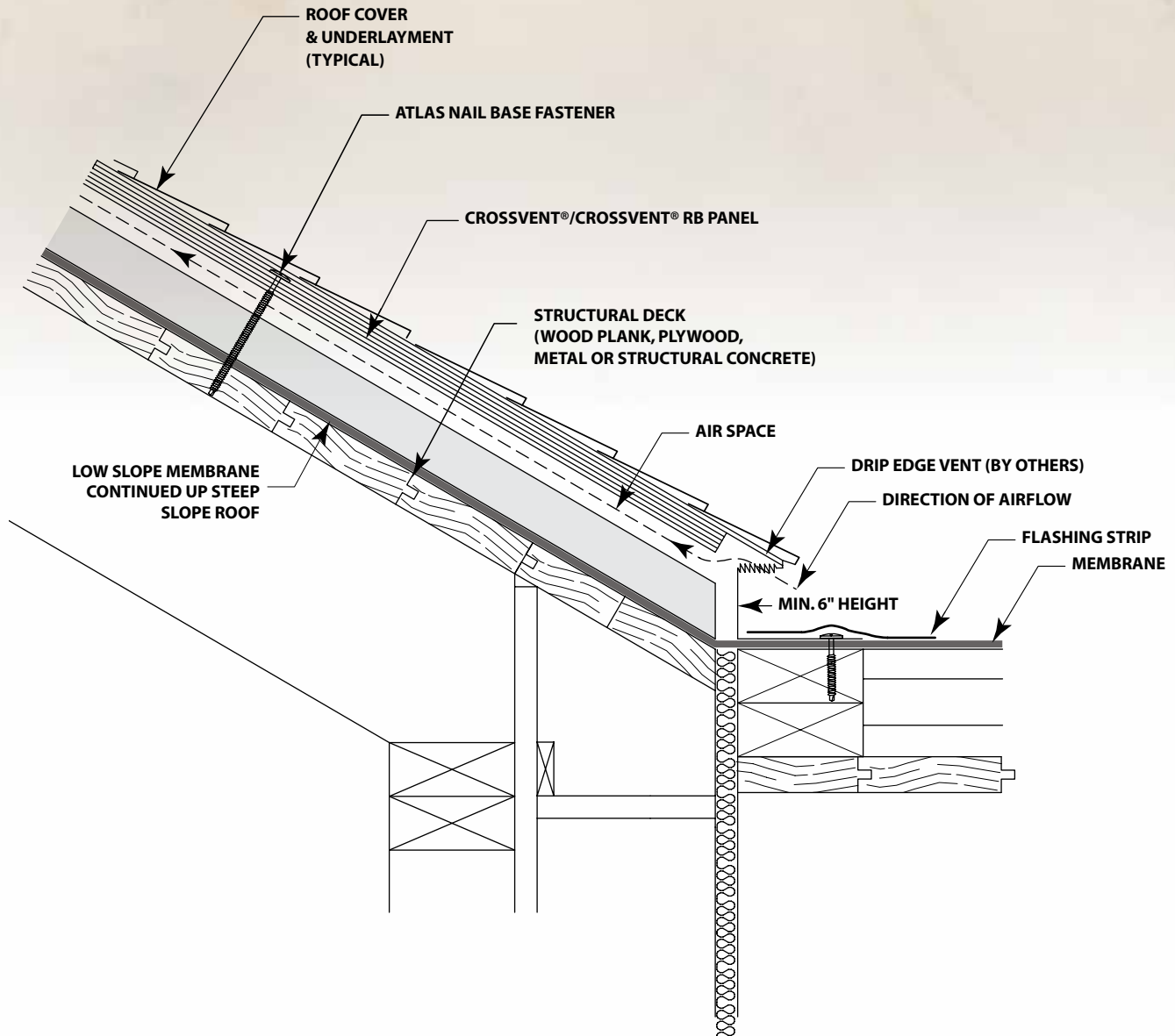
## ACFOAM® NAIL BASE TYPICAL EAVE DETAIL



### NOTES:

1. REFER TO FASTENING REQUIREMENTS ON PAGE 27 FOR APPROVED DECK TYPES AND FASTENER PENETRATION.
2. ATLAS RECOMMENDS THAT THE DESIGNER CONSIDER CAREFULLY THE NEED FOR A VAPOR/AIR RETARDER IN ORDER TO LIMIT MOISTURE/AIR FLOW INTO THE SYSTEM. DETERMINING THE NEED FOR AND LOCATION OF THE VAPOR/AIR RETARDER REMAINS SOLELY THE RESPONSIBILITY OF THE ARCHITECT, ENGINEER OR DESIGN PROFESSIONAL.
3. A TWO-LAYER INSULATION APPLICATION SIGNIFICANTLY REDUCES MOISTURE/AIRFLOW INTO THE ROOF SYSTEM.
4. FOR TILE, SLATE, OR OTHER HEAVY ROOF COVERING, THICKER OSB, SUCH AS 3/4", MAY BE REQUIRED. CONSULT ROOF COVERING MANUFACTURER FOR RECOMMENDATIONS.

## CROSSVENT® / CROSSVENT® RB STEEP SLOPE/LOW SLOPE TRANSITION DETAIL

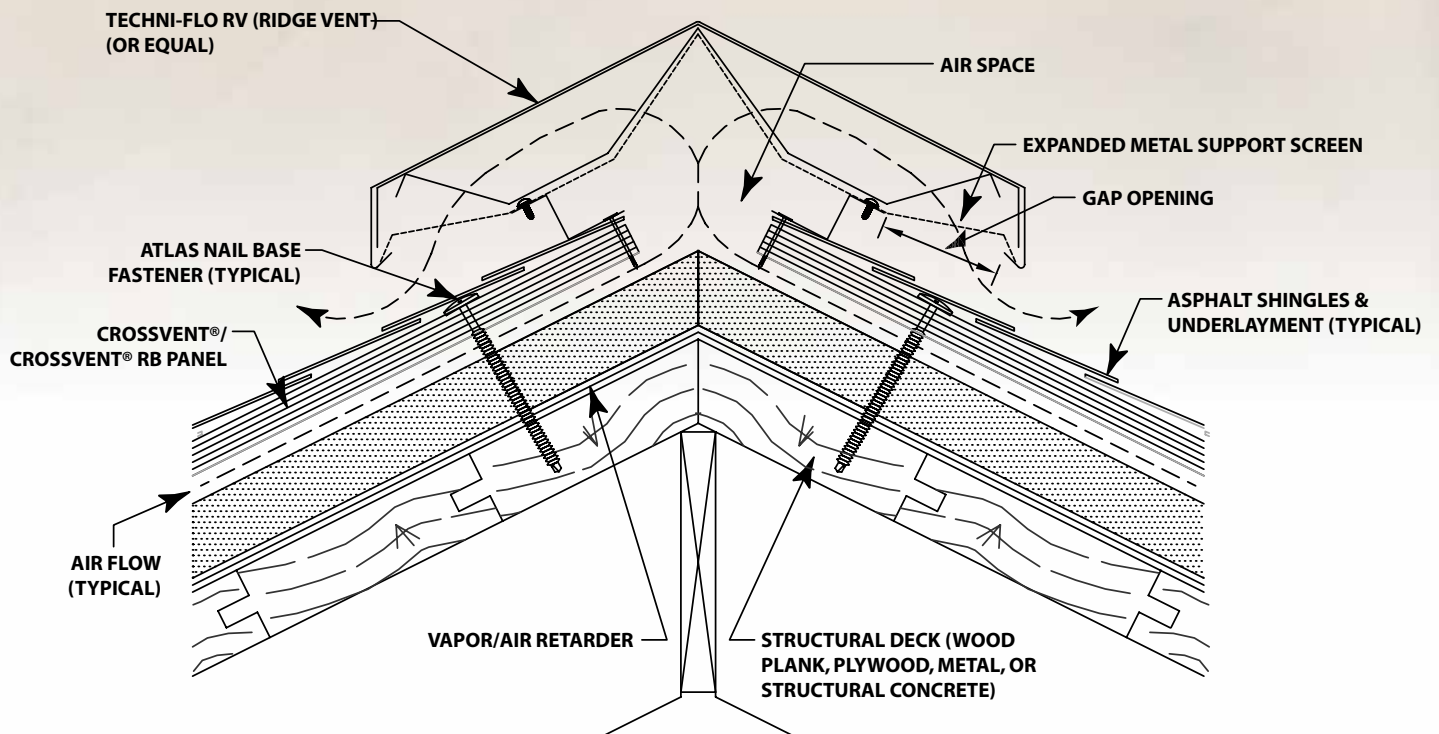


### NOTES:

1. REFER TO FASTENING REQUIREMENTS ON PAGE 27 FOR APPROVED DECK TYPES AND FASTENER PENETRATION.
2. ATLAS RECOMMENDS THAT THE DESIGNER CAREFULLY CONSIDER THE NEED FOR A VAPOR/AIR RETARDER IN ORDER TO LIMIT MOISTURE/AIR FLOW INTO THE ROOF SYSTEM. DETERMINING THE NEED FOR AND LOCATION OF THE VAPOR/AIR RETARDER REMAINS SOLELY THE RESPONSIBILITY OF THE ARCHITECT, ENGINEER OR DESIGN PROFESSIONAL.
3. A TWO-LAYER INSULATION APPLICATION SIGNIFICANTLY REDUCES MOISTURE/AIRFLOW INTO THE ROOF SYSTEM.
4. FOR TILE, SLATE, OR OTHER HEAVY ROOF COVERING, THICKER OSB, SUCH AS 3/4", MAY BE REQUIRED. CONSULT ROOF COVERING MANUFACTURER FOR RECOMMENDATIONS.
5. KEEP DRIP EDGE VENT AREA FREE OF DEBRIS TO PREVENT VENT BLOCKAGE.
6. CONSULT MEMBRANE MANUFACTURER FOR SPECIFIC INSTALLATION DETAILS.



## CROSSVENT® / CROSSVENT® RB TYPICAL RIDGE VENT DETAIL



### NOTES:

- REFER TO FASTENING REQUIREMENTS ON PAGE 27 FOR APPROVED DECK TYPES.
- FASTENER PENETRATION MINIMUMS:
 

WOOD PLANK:	1" PENETRATION INTO DECK
PLYWOOD:	1/2" THROUGH DECK
METAL:	3/4" THROUGH DECK (UPPER FLANGE ONLY)
STRUCTURAL CONCRETE (2500 PSI MIN.):	1" PENETRATION INTO DECK
- ATLAS RECOMMENDS THAT THE DESIGNER CONSIDER CAREFULLY THE NEED FOR A VAPOR/AIR RETARDER IN ORDER TO LIMIT MOISTURE/AIR FLOW INTO THE SYSTEM. DETERMINING THE NEED FOR AND LOCATION OF THE VAPOR/AIR RETARDER REMAINS SOLELY THE RESPONSIBILITY OF THE ARCHITECT, ENGINEER OR DESIGN PROFESSIONAL.
- FOR TILE, SLATE, OR OTHER HEAVY ROOF COVERING, THICKER OSB, SUCH AS 3/4", MAY BE REQUIRED. CONSULT ROOF COVERING MANUFACTURER OR RECOMMENDATIONS.
- TO CALCULATE THE APPROPRIATE RIDGE VENT GAP OPENING:  
DIVIDE THE TOTAL EAVE (INTAKE) LINEAR FOOTAGE BY THE TOTAL RIDGE (EXHAUST) LINEAR FOOTAGE AND MULTIPLY THAT NUMBER BY THE AIR SPACE DIMENSION IN CROSSVENT® / CROSSVENT® RB. (ROUND DOWN TO THE NEAREST 1/4").
- EVOLUTION™ RIDGE VENT SHOWN ABOVE MATCHES THE VENTILATION CAPACITY OF A 1" AIR SPACE DIMENSION IN CROSSVENT® / CROSSVENT® RB.

## R-5 • ATLAS NAIL BASE FASTENERS

### SPECIALLY ENGINEERED FASTENERS FOR INSTALLING ACFOAM® NAILABLE INSULATIONS

**ATLAS NAIL BASE FASTENERS ARE REQUIRED ON ALL  
ATLAS ACFOAM® NAILABLE INSULATION SYSTEMS.**

- Sharp point speeds installation
- Requires fewer fasteners than nailing
- Installs with recessed drive bit for positive driving
- Thread design increases pull-out strength
- Low-profile large diameter head eliminates need for stress plates
- Epoxy coated for maximum corrosion protection

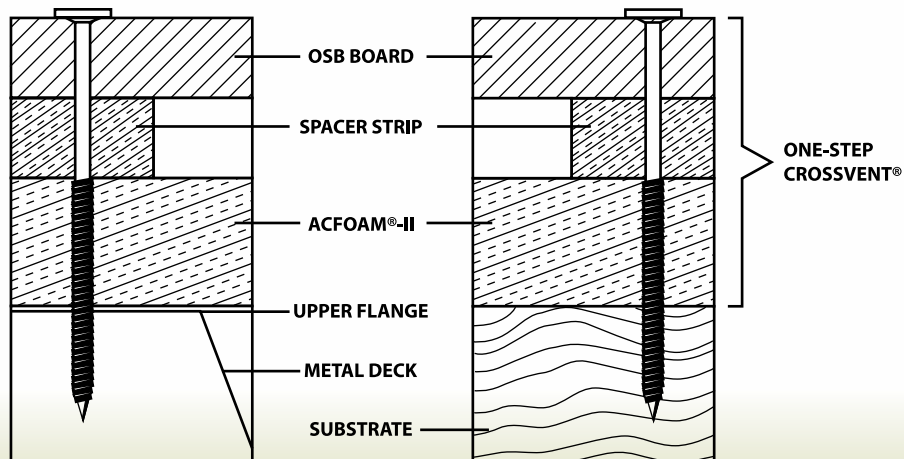


#### AVAILABLE LENGTHS

2 5/8"	3"	3-1/2"	4"	4 1/2"	5"	5 1/2"	6"	6 1/2"	7"	7 1/2"	8"	8 1/2"	9"	9 1/2"
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#### TECHNICAL DATA

MATERIAL	MAJOR DIAMETER	HEAD TYPE	HEAD SIZE
Carbon Steel with Epoxy Coating	.245 Nominal	Flat with Recessed Drive	5/8" Nominal



# R-6 • FASTENING REQUIREMENTS

## FOR ACFoam® NAILABLE INSULATIONS (4' X 8') (1220MM X 2440MM)

**TABLE 1 - REQUIRED NUMBER OF ATLAS NAIL BASE FASTENERS**

ROOF SLOPES	ROOF AREA	3:12/6:12							7:12/12:12							14:12/24:12						
		10-30	40	50	60	70	80	90	10-30	40	50	60	70	80	90	10-30	40	50	60	70	80	90
SNOWLOAD +10 PSF DEAD LOAD= TOTAL LOAD PSF	Field	15	15	15	15	15	15	20	15	20	20	20	25	25	30	20	25	30	30	35	35	40
	Perimeter	25	25	25	20	20	20	20	20	20	25	25	25	25	30	20	30	30	30	35	40	40
1" WOOD OR STRUCTURAL CONCRETE	Field	15	15	15	15	15	15	15	15	15	20	20	20	25	25	15	20	25	25	30	30	35
	Perimeter	20	20	20	20	20	20	20	15	20	20	20	20	25	25	15	25	25	30	30	35	35
19/32" PLYWOOD MINIMUM	Field	15	15	15	20	20	25	25	15	25	25	25	30	35	40	20	30	35	40	45	45	50
	Perimeter	25	25	25	25	25	25	25	20	25	30	30	30	35	40	20	35	35	40	45	45	50

- Table 1 applies to roofs in areas of wind velocity not exceeding 110 mph, Exposure C, Importance Factor I = 1.15, and maximum mean roof height of 60 feet. For overhangs, consult Atlas technical department.
- Table 1 is valid only for use with Atlas Nail Base Fasteners.
- Refer to pages 26-28 for appropriate fastening patterns.
- When plywood is used as the top surface of the ACFoam® nailable insulations, additional fastening is required. See Technical Update dated 01/04/11.
- The roof perimeter area is defined as a band equal in width to 10% of the lesser roof plan dimension or 40% of the mean roof height, whichever dimension is less (Minimum band width is 4 ft.). NOTE: PERIMETER AREA ALSO INCLUDES CORNERS.

**TABLE 2 - REQUIRED NUMBER OF ATLAS NAIL BASE FASTENERS**

ROOF SLOPES	ROOF AREA	3/12	4/12	5/12	6/12	7/12	8/12	9/12	10/12	11/12	12/12	14/12	15/12	16/12	17/12	18/12	20/12	22/12	24/12
		18-22 ga. Steel	Field	25	25	25	25	30	30	30	30	30	30	30	30	30	30	30	30
Perimeter	45		45	45	45	35	35	35	35	35	35	35	35	35	35	35	35	35	35
1" WOOD OR STRUCTURAL CONCRETE	Field	20	20	20	20	20	20	20	20	20	20	25	25	25	25	25	25	25	25
	Perimeter	35	35	35	35	25	25	25	25	25	25	25	25	25	25	25	25	25	25
19/32" PLYWOOD MINIMUM	Field	20	20	20	20	25	25	25	25	25	25	25	25	25	25	25	25	25	25
	Perimeter	40	40	40	40	30	30	30	30	30	30	30	30	30	30	30	30	30	30

- Table 2 applies to roofs with no snow load and wind velocity over 110 mph, but not exceeding 146 mph, in combination with 10 psf Dead Load, Exposure C, Importance Factor I=1.15 and maximum mean roof height of 60 feet. For overhangs, consult Atlas technical department.
- Table 2 is valid only for use with Atlas Nail Base Fasteners.
- Refer to pages 28-30 for appropriate fastening patterns.
- When plywood is used as the top surface of the ACFoam® nailable insulations, additional fastening is required. See Technical Update dated 01/04/11.
- The roof perimeter area is defined as a band equal in width to 10% of the lesser roof plan dimension or 40% of the mean roof height, whichever dimension is less (Minimum band width is 4 ft.). NOTE: PERIMETER AREA ALSO INCLUDES CORNERS.

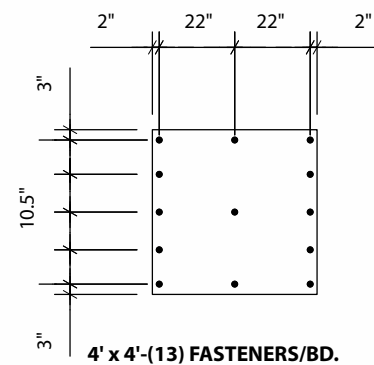
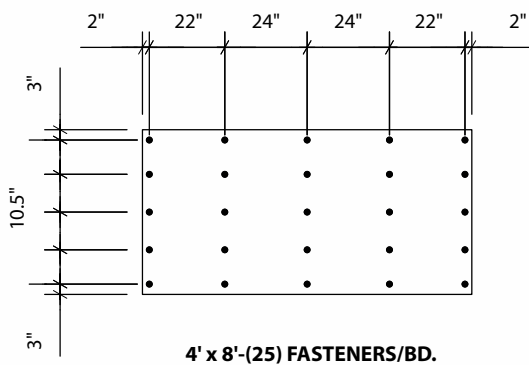
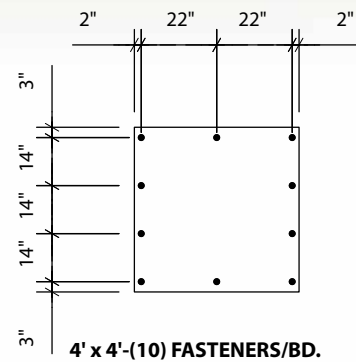
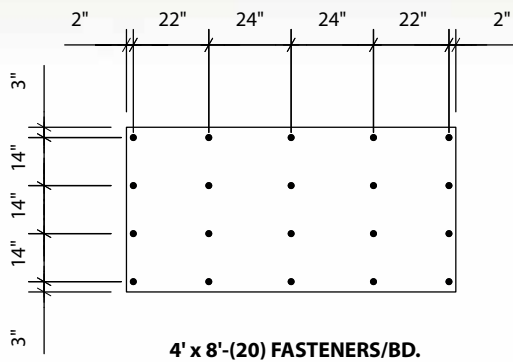
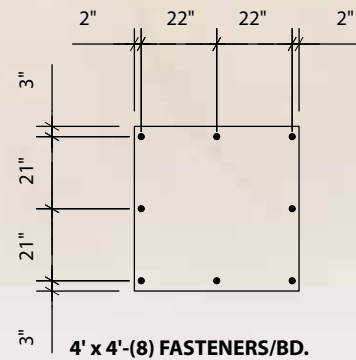
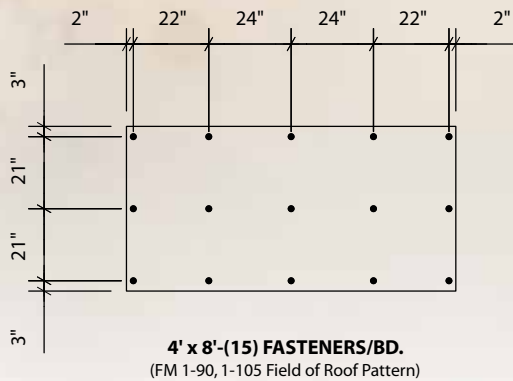
### APPROVED DECKS:

- 18-22 ga. Steel Deck (3/4" through deck [top flange]).
- Structural Concrete (2500 psi min.) 3/16" pre-drilled pilot hole required (1" min. penetration into deck).
- 1" minimum wood plank and T & G (1" penetration into deck).
- 19/32" minimum plywood (1/2" through deck).
- FM 1-60, 1-90, 1-105: 15 Fasteners (min.) for CrossVent®, CrossVent® RB and Nail Base Insulation (Steel Deck and Structural Concrete).
- For projects requiring FM wind rating, FM approved assembly, including deck and roof covering, is required.

### ATLAS NAIL BASE FASTENER INSTALLATION RECOMMENDATIONS:

- The fasteners should be installed using an 1800-2500 RPM (max.) screw gun with a hardened drive bit. Standard electric drill guns are not recommended for installation of Atlas Nail Base Fasteners.
- Metal decks are acceptable deck types provided they are between 18 ga. (max.) and 22 ga. (min.). Be sure to determine the gauge of the deck. For 16 ga. or heavier, consult the Atlas Technical Department.

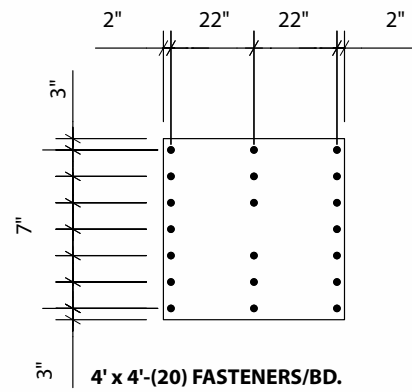
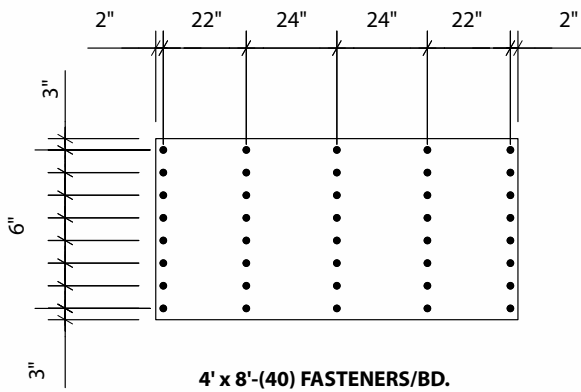
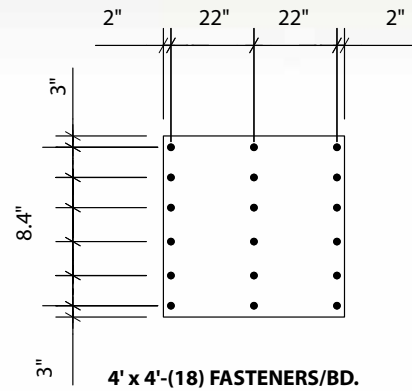
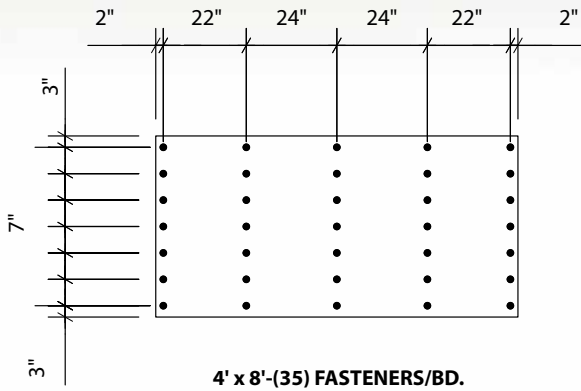
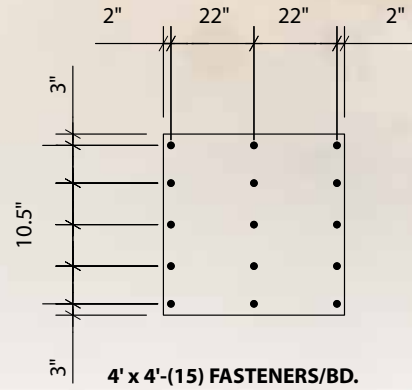
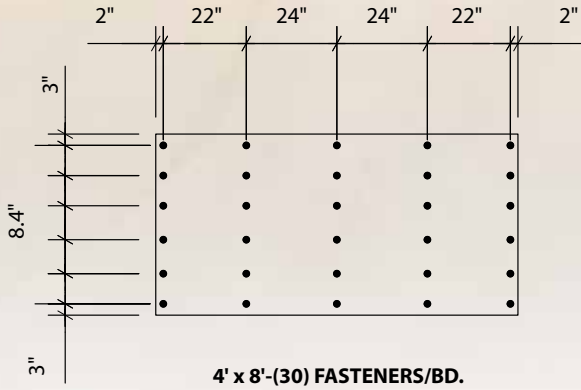
STANDARD FASTENING PATTERNS



NOTES:

1. MINIMUM THICKNESS OF CROSSVENT® / CROSSVENT® RB SHALL BE 2.5" TO MEET FM 1-60, 1-90 OR 1-105 REQUIREMENTS.
2. MINIMUM THICKNESS OF NAIL BASE INSULATION SHALL BE 1.5" TO MEET FM 1-60, 1-90 OR 1-105 REQUIREMENTS.
3. ATLAS NAIL BASE FASTENERS REQUIRED AS PART OF ATLAS ACFOAM® NAILABLE INSULATION SYSTEMS.

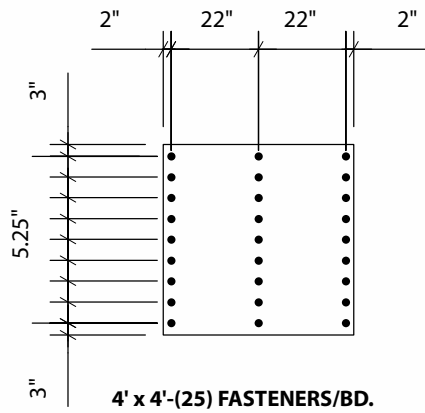
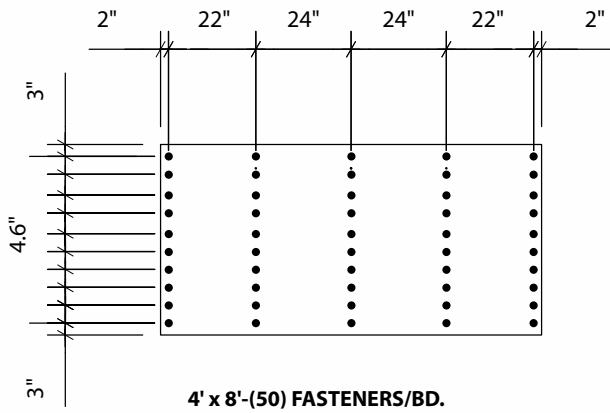
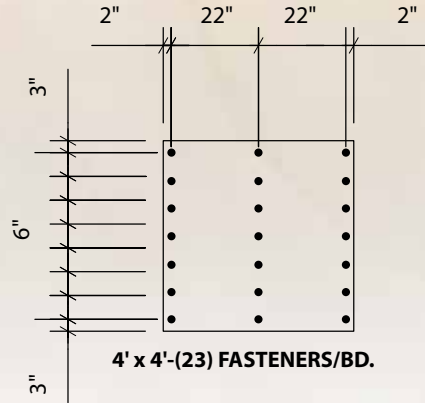
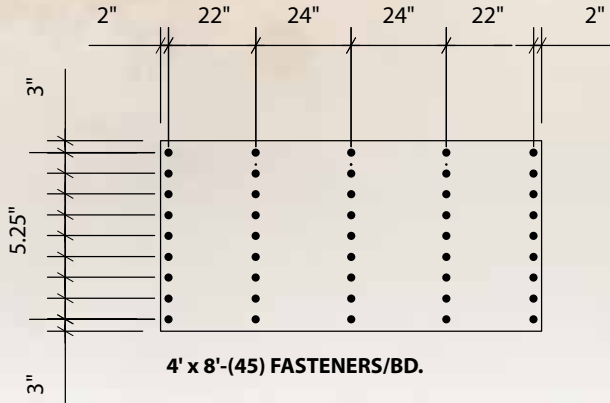
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3. ATLAS NAIL BASE FASTENERS REQUIRED AS PART OF ATLAS ACFOAM® NAILABLE INSULATION SYSTEMS.

## WARRANTY INFORMATION

### 20-YEAR LIMITED WARRANTY

In response to valid concerns of building designers regarding thermal efficiency of roof assemblies and the long-term insulating value of roof insulation, Atlas offers a 20-year, limited thermal warranty. The “ACFoam® Limited Warranty” places Atlas products above all others and supports the building owner, designer and contractor by backing up thermal performance. This warranty is available to the building owner at the time the building is completed and is transferable to any subsequent owner for the duration of the 20-year period.

**Other than the aforementioned representations and descriptions, Atlas Roofing Corporation** (hereafter, “Seller”) makes no other representations or warranties as to the insulation sold herein. **The Seller disclaims all other warranties, express or implied, including the warranty of merchantability and the warranty of fitness for a particular purpose.** Seller does, however, offer a limited warranty as to the R-value of the insulation, the terms of which are available upon request from Seller.

**Limitation of Liability:** The Seller shall not be liable for any incidental or consequential damages including the cost of installation, removal, repair or replacement of this product. The Buyer’s remedies shall be limited exclusively to, at Seller’s option, the repayment of the purchase price or resupply of product manufactured by Atlas in a quantity equal to that of the nonconforming product. Atlas distributors, agents, salespersons or other independent representatives have no authority to waive or alter the above limitation of liability and remedies.

**Storage:** Material delivery should be carefully coordinated with the roof application schedule to minimize job site storage. If job site storage cannot be minimized, the polyiso should be stored in a dry, well-ventilated warehouse. Factory-applied packaging is intended only for protection during transit. When stored outdoors or on the job site, the insulation should be stacked on pallets at least three inches above ground level and completely covered with a weatherproof covering such as a tarpaulin. The temporary factory-applied packaging should be slit or removed to prevent accumulation of condensation. Roof insulation which has become wet or damaged should be removed and replaced with solid, dry insulation.

**Warning — Do Not Leave Exposed:** This product is a polyiso organic plastic foam and will burn if exposed to an ignition source of sufficient heat and intensity, or open flame, such as a welder’s torch. Like other organic materials, this product will release smoke if ignited. Do not apply flame directly to ACFoam® Roof Insulation when installing a torch applied system. This product should be used only in strict accordance with Atlas recommended uses and application instructions.

Atlas recommends ACFoam® Roof Insulation products only for roofing applications installed by a qualified contractor. FM Approvals has approved the use of ACFoam® products as components in Class 1 insulated roof deck construction. ACFoam® products have also been tested as a component of an insulated roof deck at Underwriters Laboratories. Atlas does not recommend the use of ACFoam® products for any other applications. Anyone using ACFoam® products for any other application is doing so at his or her own risk.

Atlas suggests that anyone using ACFoam® Roof Insulations for any other uses consult the local authority on the regulation of building materials (usually the building code official) and insurance carrier prior to such use. Atlas assumes no responsibility for the effects of structural movement.

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### TECHNICAL ASSURANCE

Atlas provides a full-service Technical Department with a LEED Accredited Professional (AP), Registered Roof Consultant (RRC), Construction Documents Technologist (CDT), and Certified Construction Product Representative (CCPR) on staff.

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### East Moline, IL

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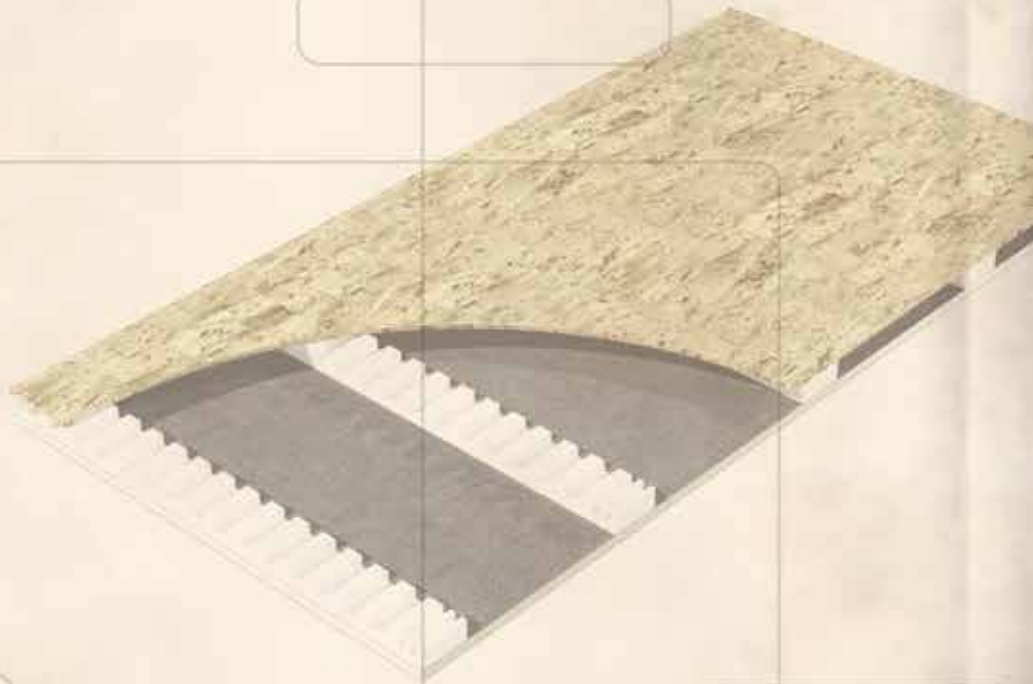
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**Corporate Sales and Marketing**  
2000 RiverEdge Parkway, Suite 800  
Atlanta, GA 30328  
[www.AtlasRoofing.com](http://www.AtlasRoofing.com)